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To whom it may concern

CS-3 Installation/Service Manual (Revised as of Jan. 08)

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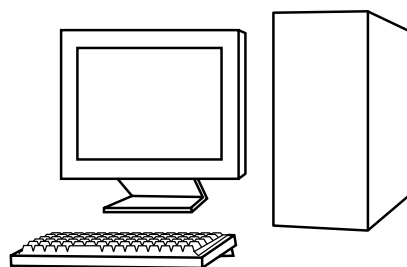
KONICA MINOLTA

REGIUS CONSOLE

CS-3

INSTALLATION / SERVICE MANUAL

CODE NO. 0862



2nd EDITION JAN. 2005

KONICA MINOLTA MEDICAL & GRAPHIC, INC.

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PRECAUTIONS FOR CS-3 INSTALLATION & SERVICE

Observe the precautions below before starting installation or maintenance service.

1. Precautions for installing and servicing the CS-3

- Be certain to comply with any and all laws and government regulations including electric codes and utility regulations, regarding the installation and operation of this equipment.
- A work that may cause vibration to the CS-3 should be initiated 30 sec or longer after the device is shut down.
- Only properly trained and authorized service personnel can install and service the CS-3 in order to prevent risk of injury.
- When an access close to the moving parts, such as fan is required in servicing, take great precautions not to get injured from the part of body or clothes being caught by the fan.
- The electric circuit in the CS-3 may be damaged by static electricity. The main body and any electrical parts removed should be handled with due care during servicing. An anti-static wristband should always be worn when handling circuit boards.
- Before removing or replacing internal circuit boards, or disconnecting connectors or cables, the CS-3 power supply must be switched off.
- Carrying out the disassembling or assembling with the power on will result in serious injury and must always be avoided.
- Operation and adjustment of the device in a way other than described in this manual may cause emission of hazardous electromagnetic waves and must always avoided.
- Observe the cautions described in the warning label in order to provide an adequate and safe service.
- CS-3 Control Unit incorporates lead batteries. Only the properly trained and authorized service personnel is allowed to change the batteries.
- Do not allow the user to remove the outer covers of the device.

2. Precautions against electric shock

- Precautions against high voltage
 - CS-3 contains a high voltage power supply. Observe the following precautions to avoid electric shock.
 - Touching the high voltage supply parts of the device after removing covers may cause electric shock.
- Precautions against power supply
 - Maximum 240VAC is supplied to the devices that compose the CS-3. Observe the following precautions to avoid electric shock.
 - Install the devices in a place where they are not exposed to water.
 - Check that the devices are well grounded.
 - Make sure that all the cables are connected correctly and are not damaged.

3. Precautions for installing the CS-3

- Do not install the device directly on the floor.
- Install the CS-3 in a place where it is not exposed to water.
- Store in the location where there is no likelihood of being adversely affected by atmospheric pressure, temperature, humidity, airflow, direct sunlight, air containing dust, salt or sulfur, etc.
- Store in a flat place where it is free from vibration or shock.
- Do not store in a place for chemical storage or in a place where a gas may evolve.
- Do not use any power outlet other than that whose voltage and frequency complies with the specification of the CS-3.
- Use the power outlet that has a well sufficient electric capacity to match the power consumption of the CS-3.
- Power cable and communication cable shall be connected to the CS-3 to operate. Lay the cables neatly to avoid to trip over and to accidentally disconnect them.
- Make sure that the power cable is properly plugged in the power outlet that has an independent grounding. In case if the power outlet has no independent grounding terminal, use an additional grounding terminal

and secure the connection.

- CS-3 has an air inlet and outlet in order to prevent the temperature from rising in the device. Do not block the air inlet and outlet.
- Installing the CS-3 close to the device that is not complying with EMC, it may cause malfunction.
- Do not install the CS-3 in the environment where the patient can easily access the device.

4. Checks and cautions before use of the CS-3

- Check if the power cable is not damaged.
- Check if the earth cable is properly connected.
- Check if all the cables are connected correctly and not loose.
- Check if there is no fracture or crack on the LCD of the CS-3 Operation Unit.
- Check if the CS-3 operates stably and without failure.
- CS-3 has an air inlet and outlet in order to prevent the temperature from rising in the device. Do not block the air inlet and outlet.

5. Precautions for handling the CS-3 LCD panel

- Operate the touch panel of the CS-3 Operation Unit with fingers. Do not use a sharp-pointed object, such as a pen, as it will crack or damage the touch panel. Because the LCD is made of glass, do not apply a physical force to the LCD.
- If the touch panel is broken, and the liquid inside it is leaked, do not put it into your mouth. If the liquid is put on the part of your body or clothes, immediately wash it off in soapy water.
- If cracking or breakage occurs on the touch panel, immediately stop using it. Never use it when the touch panel is damaged.

6. Precautions for storage location and method of the CS-3 when the use is suspended

- Turn the power OFF in the specified procedure.
- Correctly hold the cables when they are unplugged.
- Observe the following precautions for storage location.
 - Store in the location where the unit will not be exposed to water.
 - Store in the location where there is no likelihood of being adversely affected by atmospheric pressure, temperature, humidity, airflow, direct sunlight, air containing dust, salt or sulfur, etc.
 - Store in a flat place where it is free from vibration or shock.
 - Do not store in a place for chemical storage or in a place where a gas may evolve.
- Keep all accessories, cables, etc., neatly in the storage location after cleaning them.
- Be sure to clean them not to cause any trouble when it is used for the next time.

7. Precautions in operating the CS-3 after an extended period of non-use.

- Check if there is no damage on the power cable.
- Make sure that the device well grounded.
- Make sure that all the cables are connected correctly and firmly.
- Check if there is no fracture or crack on the LCD of the CS-3 Operation Unit.
- Check if the CS-3 operates stably and without failure.
- Using the device with other X-ray device at the same time may result in an incorrect diagnosis or hazardous to people. So, extreme care should be taken.
- CS-3 has an air inlet and outlet in order to prevent the temperature from rising in the device. Do not block the air inlet and outlet.

8. Ethernet Port

- Do not connect other cable than Ethernet cable to the Ethernet port.
- Do not use the Ethernet port for the connection to the telephone line.

9. Precautions when disposing of the product and packing materials.

- When disposing of the product and packing materials, accept the local ordinance and regulations
- The lead and lithium batteries inside the CS-3 Control Unit, which can be hazardous and must be disposed of properly.

ALERT SYMBOL MARK



Safety Alert Symbol

This is the industry "Safety Alert Symbol". This symbol draws your attention to items and operations associated with the use of this equipment that could result in danger to yourself and others. Please read all messages next to alert symbol marks, and follow the directions very carefully. Before assembling or using this equipment, it is important that you read the instructions and safety standards.

OTHER SYMBOL MARKS

The meaning of following symbol marks described in this equipment and this manual is as the following table.

No.	Symbol	Meaning of Symbol
1		Danger, Warning or Note. Read the description that bears this symbol.
2		Compulsory symbol. Must observe the instruction.
3		Alternating current
4		Protective earth (ground)
5		OFF (power: disconnection from the mains)
6		ON (power: connection to the mains)
7		Stand by ON/OFF (The main power source will still be ON even when this is turned OFF.)
8		Dangerous voltage.

WARNING NOTICES (SIGNAL WORDS)

- (1) Signal words provide an indication of the degree of danger concealed within the product.
- (2) This manual uses three different signal words depending on the probability and severity of injury or damage as explained below.

DANGER : Indicates an acute hazard that will result in death or serious injury if not avoided.
WARNING : Indicates a danger that may result in death or serious injury if not avoided.
CAUTION : Indicates a danger that may result in medium-level wound or minor injury if not avoided. It is also used to indicate anticipation of a danger of physical damage only.

		Probability of damage	
		High	Low
Bodily injury and (damage to equip- ment)	Death or serious injury (serious damage)	DANGER	WARNING
	Medium-level wound or minor injury (minor dam- age)	WARNING or CAUTION	CAUTION
Physical damage only		CAUTION	

List of Optional Licenses

1. Description of Each License

License	Product Code (Displayed on the screen)	Function
STANDARD SOFTWARE (BASIC LICENSE)		<p>A basic license for CS-3 standard software. This software is essential to start up the CS-3. Channels available for communication with external devices when this software is installed are ;</p> <p>Printers : One channel is available either for the printer or host. (When a printer is connected, an additional channel is available for a backup printer)</p> <p>Hosts : One channel is available either for the printer or host. (When a host is connected, an additional channel is available for the backup host)</p> <p>RIS-IN : Not available</p>
MWM/FTP/DETACHED OPTION		RIS-IN channels 1 and 2 become available.
MPPS/DETACHED OPTION		RIS-OUT channels 1 and 2 become available.
HQ MAMMOGRAPHY OPTION		Enables to read high resolution (43.75 μ m) images of mammograph.
DICOM OUTPUT ADDITIONAL #1		<p>Adds one more channel for output to printer or host in addition to the standard configuration made possible with STANDARD SOFTWARE. (2 channels for Printer/Host in total)</p> <p>Also adds one more backup channel for the printer or host. However, note that the maximum backup channel available for the printer or host is limited to one.</p>
DICOM OUTPUT ADDITIONAL #2		<p>Adds one more channel for output to printer or host in addition to the configuration made possible with DICOM OUTPUT ADDITIONAL #1. (3 channels for Printer/Host in total)</p> <p>Also adds one more backup channel for the printer or host. However, note that the maximum backup channel available for the printer or host is limited to one.</p>
DICOM OUTPUT ADDITIONAL #3		<p>Adds one more channel for output to printer or host in addition to the configuration made possible with DICOM OUTPUT ADDITIONAL #2. (4 channels for Printer/Host in total)</p> <p>Also adds one more backup channel for the printer or host. However, note that the maximum backup channel available for the printer or host is limited to one.</p>
DICOM OUTPUT ADDITIONAL #4		<p>Adds one more channel for output to printer or host in addition to the configuration made possible with DICOM OUTPUT ADDITIONAL #3. (5 channels for Printer/Host in total)</p> <p>Also adds one more backup channel for the printer or host. However, note that the maximum backup channel available for the printer or host is limited to one.</p>
DICOM OUTPUT PACKAGE		<p>Adds 4 more channels for output to printer or host in addition to the standard configuration made possible with STANDARD SOFTWARE.</p> <p>This package cannot be used in combination with DICOM OUTPUT ADDITIONAL #1 ~ 4.</p> <p>Also adds one more backup channel for the printer or host. However, note that the maximum backup channel available for the printer or host is limited to one.</p>

2. Maximum channels available on CS-3 for Printers, Hosts and RIS

Output Device	Maximum Channels
Printer (Std)	3
Printer (Backup)	1
Host (Std)	2
Host (Backup)	1
RIS-IN (Std)	2
RIS-IN (Backup)	1
RIS-OUT (Std)	2
RIS-OUT (Backup)	1

- Relation between the necessary license and a number of output devices

Ex 1) At the facility where only one printer output channel is necessary.

Required license : STANDARD LICENSE

One channel for printer output and other one channel for backup printer are available.

Ex 2) At the facility where only one host output channel is necessary.

Required license : STANDARD SOFTWARE

One channel for host output and other one channel for backup host are available.

Ex 3) At the facility where 2 printer output channels and one host output channel are necessary.

Required license : STANDARD SOFTWARE + DICOM OUTPUT ADDITIONAL #1 + DICOM OUTPUT ADDITIONAL #2

One channel each for printer output and host output is available.

Additionally one channel each for backup printer and backup host is available.

Ex 4) At the facility where 3 printer output channels and 2 host output channels are necessary.

Required license : STANDARD SOFTWARE + DICOM OUTPUT PACKAGE

3 channels for printer output and 2 channels for host output are available.

Additionally one channel each for backup printer and backup host is available.



Overview



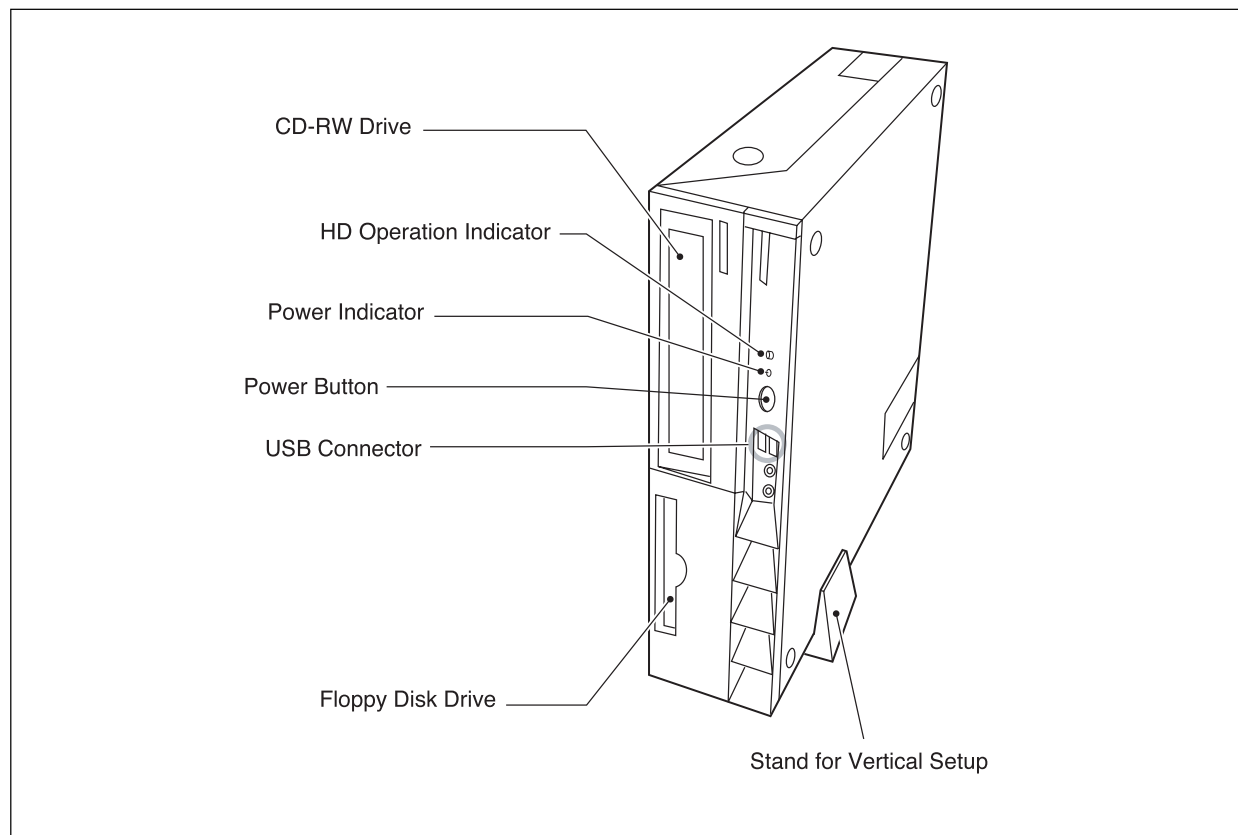
Blank Page

1.1 Specifications

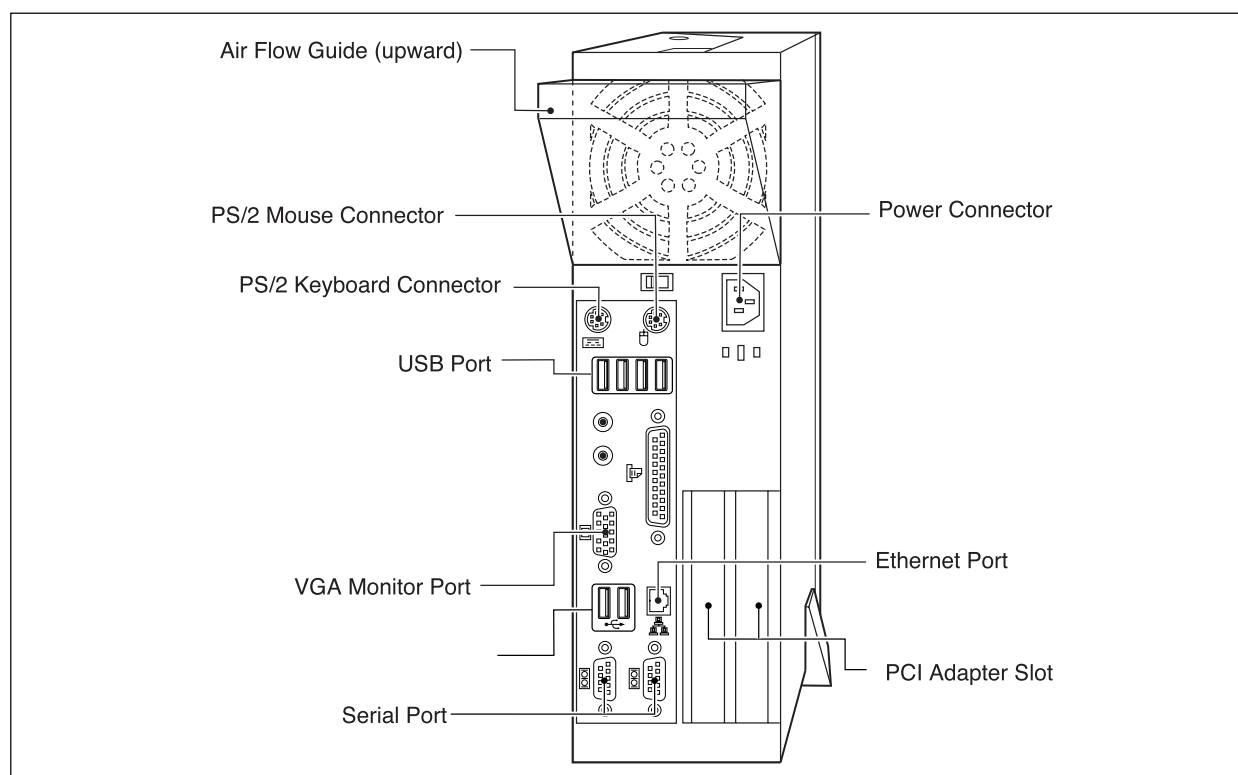
Product Name	REGIUS Console CS-3
CODE No.	0862
Image Processing	Automatic grayscale processing, frequency processing, equalization processing, hybrid processing
Memory for Image Storage	20 GB or more
I/O Port	Ethernet 100baseTX/1000base-T (Standard X 1)
Image Output	
Host	Normal 3ch, Backup 1ch (Parallel output: 3ch max.)
Printer	Normal 2ch, Backup 1ch (Parallel output: 1ch max.)
DICOM Support	Storage SCU, Storage Commitment, Grayscale print Management SCU, Modality Worklist Management SCU, Modality Performed Procedure Step SCU
External Dimensions	
Control Unit	85(W) x 359(D) x 309(H) mm
Operation Unit	346(W) x 369(D) x 157(H) mm
Weight	
Control Unit	Approx. 15kg
Operation Unit	Approx. 5kg
Power Supply	
Control Unit	: AC 100 ~ 240V 50/60 Hz approx. 178.8VA (154kcal/h) Equipped with an uninterruptable power supply (UPS) as standard
Operation Unit	: AC 100 ~ 240V 50/60 Hz approx. 40VA (34.4kcal/h)
Operational Condition	10~35°C/8~80RH% (no condensation)
Transport/Storage Condition	-40~40°C/5~100RH% (no condensation)
Accessories	Control Unit power cable, Power plug, Operation unit power cable, Signal cable (VGA), USB cable, Stereo cable, PS/2 Keyboard x 1, Mouse x 1, Control unit stand, Air-flow guide, CS-3 Operation manual, PC User's guide
Options	REGIUS Model 350 (upright) control interface (number of readers controlled: 350 x 1 unit), Ethernet port (1000baseTX), Barcode reader for cassette registration (multiple/single)

1.2 CS-3 Name of Parts

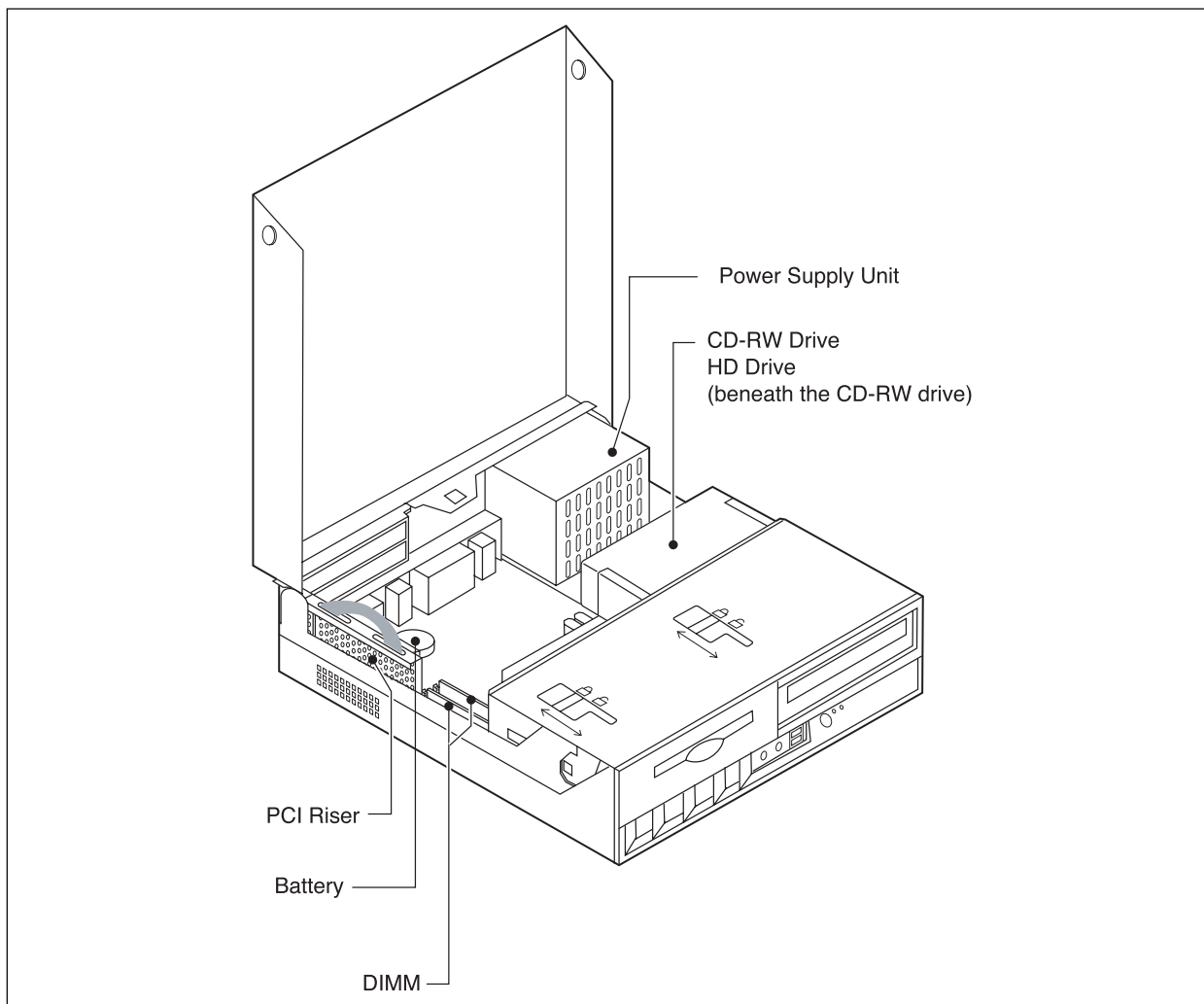
1.2.1 CS-3 Control Unit (Front)



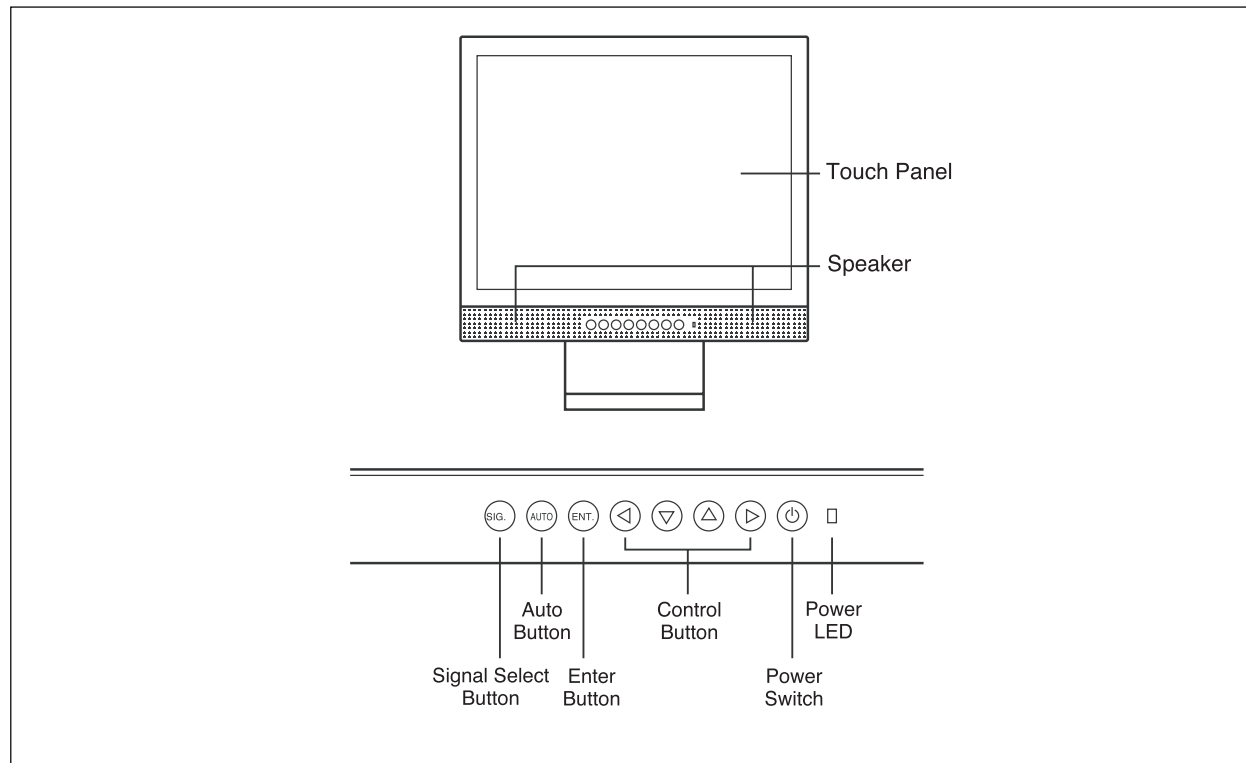
1.2.2 CS-3 Control Unit (Rear)



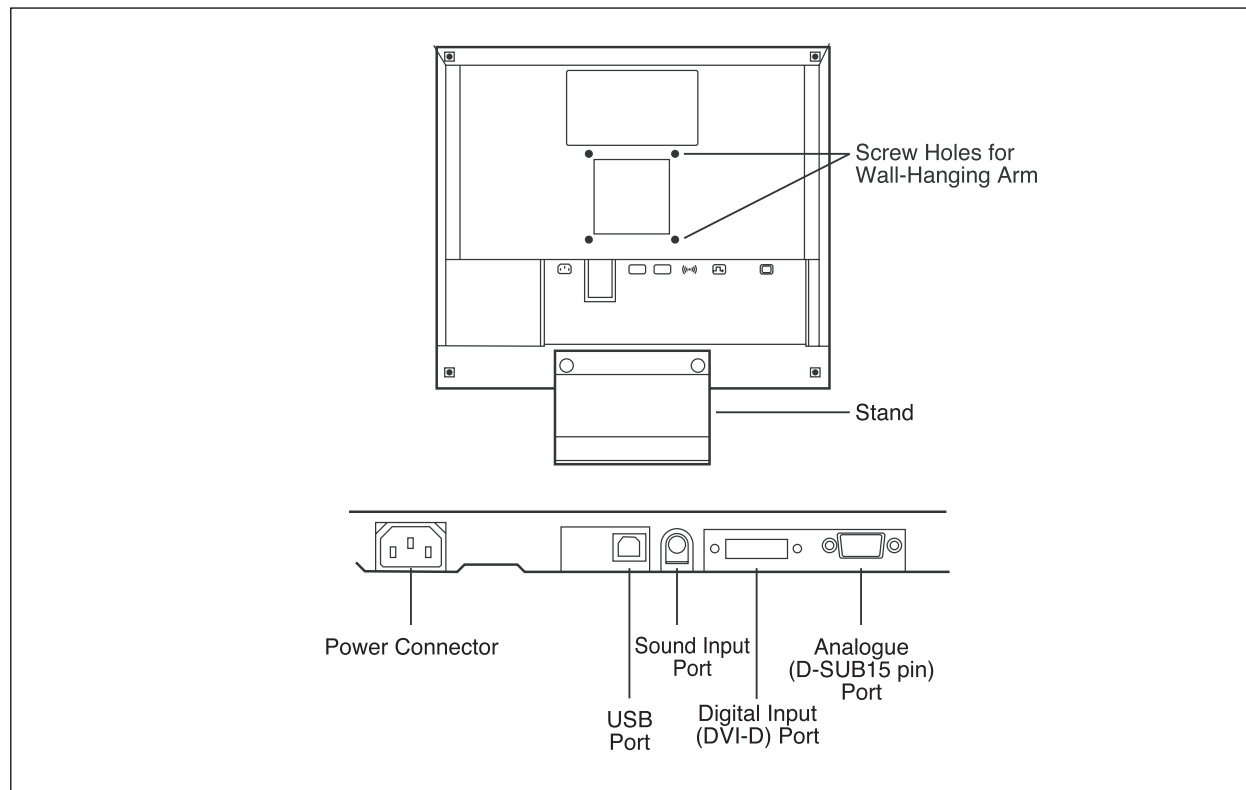
1.2.3 CS-3 Control Unit (Inside)



1.2.4 CS-3 Operation Unit (Front)



1.2.5 CS-3 Operation Unit (Rear)



1.3 Functions of CS-3

CS-3 is a console newly developed for controlling KonicaMinolta Digitizers (REGIUS MODEL 190, REGIUS MODEL 170 and REGIUS 350, an upright dedicated reader). (Hereinafter REGIUS 190, REGIUS 170 and dedicated reader represent each of the official product name)

In comparison to the previous types of system configuration involving existing CS-1 and REGIUS 170, the system configuration using CS-3 and REGIUS 190 offers higher resolution images. As a result, images produced at the resolution of 43.75 μ m (contact mammo high resolution imaging) becomes available with a new system.

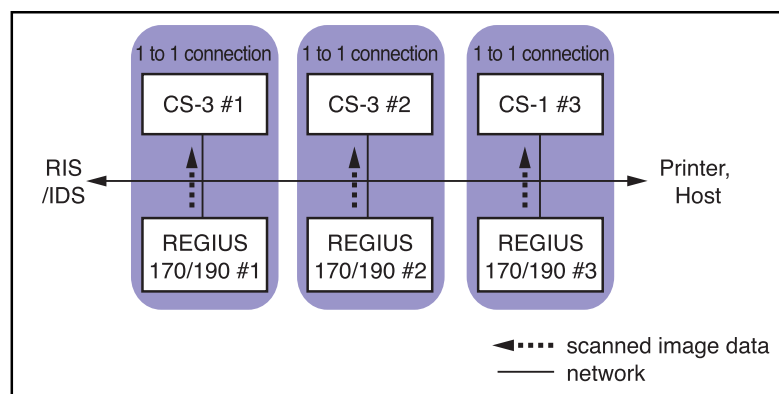
Please be prepared to be capable of configuring various system configurations depending on the requirements by understanding the capability of CS-3 in depth.

<IMPORTANT> It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.

1.3.1 1 to 1 connection & “n” to “m” connection

The most simple and basic system is a configuration where one CS-3 is connected to one REGIUS190/170 via Ethernet, and the CS-3 functions as a controller exclusively for this REGIUS/190170. This type of configuration is denoted as “1 to 1 connection” in this manual.

Several pairs of REGIUS 190/170s and CS-3s in “1 to 1 connection” on the same network can be operated. However, in this case, the REGIUS190/170 from which the CS-3 can read the image is restricted to the one that has been set in “1 to 1 connection”.

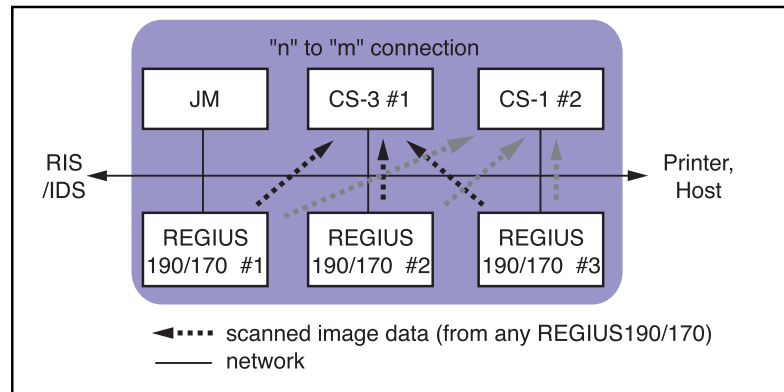


On the other hand, a configuration where several CS-3s and REGIUS170s are connected on the same network, and each CS-3 is sharing the REGIUS170 is denoted as “n to m connection”.

<IMPORTANT> It is required to update the software version of CS-1 to V2.00Rxx or later to read the image scanned on the REGIUS 190 using the existing CS-1.

<IMPORTANT> It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.

In this “n to m connection”, any CS-3 can read the image using any of REGIUS170s.



- "JM" indicated in the figure will be explained later in this manual.

<IMPORTANT> It is required to update the software version to V2.00Rxx or later to configure the CS-3 and CS-1 in “n to m” network.

<IMPORTANT> It is required to update the software version to V1.01Rxx or later to read the image scanned on the REGIUS 170 using the CS-3.

1.3.2 barcode Registration & Manual Registration

As explained in the previous page, in the configuration of “1 to 1 connection”, the image of the cassette that is inserted in a REGIUS 190/170 is always sent to a preselected CS-3. Therefore, the image and the examination data can always be paired uniquely.

On the contrary, in the “n to m connection”, the image data may be sent to a wrong CS-3 unless otherwise the linkage that defines which image should be paired with the examination data of the specific CS-3 is determined in advance.

Therefore, reading the barcode information on the cassette before the exposure (or insertion), and registering the read data in the examination data using a barcode reader attached to the CS-3, a relation to the image data (cassette) is established. When this registered cassette is inserted in the REGIUS 190, the barcode information read by the REGIUS 190 and that already registered in the CS-3 is compared, and which image data should be sent to the specific CS-3 is determined.

In this manual, this method is defined as “barcode Registration” while the former method that does not use the barcode reader is defined as “Manual Registration”.

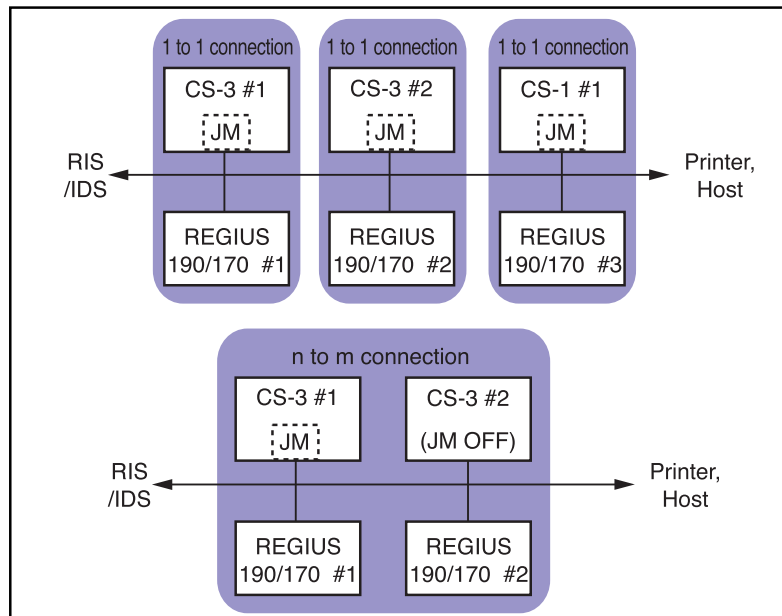
It is essential to select “Barcode Registration” when the system is networked in “n to m” configuration. However, either of “Manual Registration” or “Barcode Registration” can be selected for “1 to 1” configuration.

1.3.3 What is JM ?

JM (Job Manager) is a name of the device that controls the transmission of the image data according by means of establishing the relation between the barcode information on the cassette and the examination data. Whether it is a “1 to 1 connection” or “m to n connection”, JM is essential for the system comprised of CS-3(s) and REGIUS 190(s). JM is incorporated in the CS-3, and its ON/OFF of the operation can be preset.

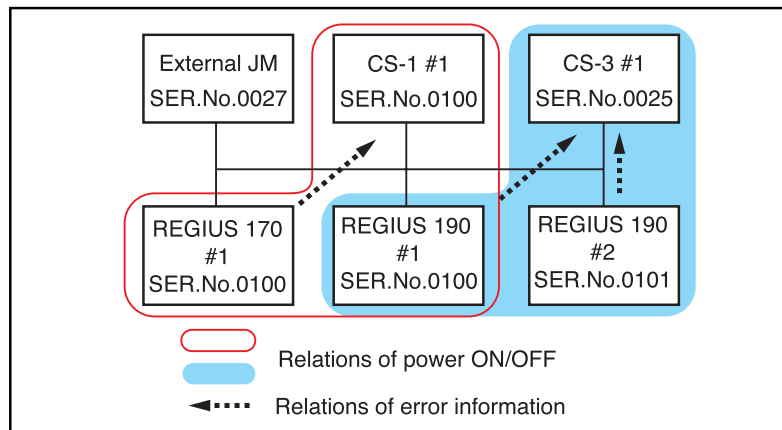
A single JM that is incorporated in the CS-3 should be sufficient to manage the operation for “1 to 1 connection” or “n to m connection” with up to 4 units in total of CS-3 and REGIUS 190/170. However, “n to m connection” with 5 or more units should be overcapacity for a single JM, thus an external PC that independently functions as JM is required. (refer to the figure in the previous page)

In the “1 to 1 connection”, operate JM in all CS-3(s), and in the “n to m connection”, operate a single JM on the network.



1.3.4 Relations for “n” to “m” Connection

In the “1 to 1 connection”, turning off the CS-3 will automatically put the REGIUS190/ 170 to the standby. On the other hand, in the “n to m connection”, any REGIUS 170 is held in parallel to all CS-3s, and all REGIUS190/ 170s have to be activated as long as any CS-3 is activated. To solve this inconvenience, a relation for controlling the power has been set between CS-3 and REGIUS 190/170 so that a specific REGIUS 190/170 can be turned ON/OFF. For example, as shown in the figure below, CS-3 #1 is related to REGIUS 190 #1 and #2 as to the power control, while CS-3 #2 is related to REGIUS 190 #2 and #3.



In this configuration, terminating the system software on CS-3 #1 alone will automatically put REGIUS 190 #1 alone on standby. Similarly, when CS-3#2 alone is terminated, REGIUS 190 #3 alone will be put on standby. Here, because REGIUS 190#2 is related to both CS-3s, it is kept activated as long as either CS-3 is activated. It will be put on standby only when both CS-3s are terminated. This relation can be also applied to the error message so that an error occurred on a specific REGIUS 190/170 can be sent to a specific CS-3. In the example shown above, an error occurred on REGIUS 190 #1 will be notified only to CS-3 #1, while an error occurred on REGIUS 190 #2 and #3 will be notified only to CS-3 #2.

1.3.5 Detached & MWM

“Detached” and “MWM” are the types that specify the communication method of examination data or result between the CS-3 and RIS/IDS when RIS or IDS is present in the network. CS-3 can select either of these for communication method.

In the “Detached” system, the examination information will be sent from RIS/IDS to the CS-3. When several CS-3s are networked, RIS/IDS can send this information only to the specified CS-3 that will implement the examination.

“MWM” is newly adopted by CS-1. In this system, search of the examination information will be initiated from the CS-3 against RIS/IDS. CS-3 regularly searches the examination information from RIS/IDS so that the CS-3 can maintain the latest information, making it unnecessary for RIS/IDS to send the information to the CS-3. However, in this case, same examination information will be shown on the all CS-3s which are networked. An operator selects the necessary examination information from the list shown on the screen. Once the examination information that is selected on any CS-3 will be locked and become unable to be selected on the other CS-3. Also the examination information for which the examination has been completed will be deleted from the list of all CS-3s.

1.3.6 About the Plate & Film for Mammo Image

The newly developed high density film for mammo image combined with newly introduced DRYPRO 793 is capable of outputting the image with higher density (Max. D = 4.0) than that of the regular film (Max. D = 3.0). Combination with the high sharpness plate and REGIUS 190 enables to produce a quality image yet better than the one of the existing system.

However, the maximum density using the existing DRYPRO 751/752 is limited to Max. D = 3.6. Therefore, setting item with which the maximum density can be set is newly added to the exam tag keys of CS-3. Nonetheless, following operation style may be adopted at some institutes;

- Normally, output to DRYPRO 793 is made with Dmax 4.0.
- Output to DRYPRO 751/752 is made with Dmax 3.6 in the case when DRYPRO 793 is in faulty.

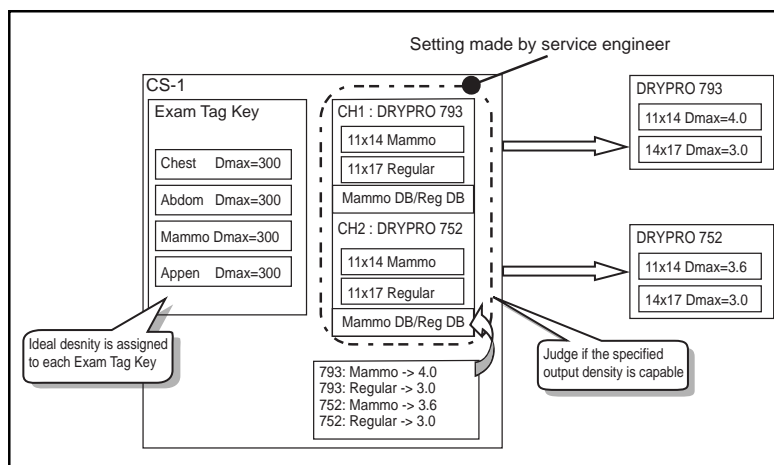
Of course, these Dmax information can be set to exam tag keys on each imager. However, it obliges service engineers to perform additional works. In addition, it may be necessary to vary these parameters because the Dmax 4.0 films are viewed on high luminance light table ($L_a=7000/L_0=0$) while the Dmax 3.0 films on normal light table ($L_a=2000/L_0=10$). In order to overcome such inconvenience, CS-3 handles the process as follows;

1. Dmin/Dmax/ L_a/L_0 can be set to each exam tag key. (whereas the Dmax is the ideal density with which the output is made from CS-1)
2. A device connected to each channel can be identified viewing the “Disp. Icon” that can be identically set.

Also which of the two, normal film and/or mammo film is loaded in the tray can be judged for each film size viewing the “Setup Info per Film”.

Dmax that is available for the normal film and mammo film, and Dmin/ L_a/L_0 that shall be set for the film selected can be set to “FilmProperty.ini” file. (This means practical density achievable with the film to be output is determined judging from device and film type.)

3. Dmax set to the exam key is compared with the Dmax achievable with each printer channel, and use “Dmin/La/L0” in the “ini” file when the Dmax achievable with the printer channel is lower. (This means that comparing the ideal density with the capable density, output is made using the capable parameter setting when the capable output density assigned to the channel is lower)



To be more precise ;

1. When mammo films are present ;

Dmax set to the exam key is equal or lower than the Dmax of mammo film achievable with each printer channel, use “Dmax/Dmin/La/L0” set to the Exam Tag key for output. If else, use “Dmax/Dmin/La/L0” in “FilmProperty.ini” for mammo film.

2. When no mammo film is present but regular films.

Dmax set to the exam key is equal or lower than the Dmax achievable with each printer channel, use “Dmax/Dmin/La/L0” set to the Exam Tag key for output. If else, use “Dmax/Dmin/La/L0” in “FilmProperty.ini” for mammo film.

Because the printers other than DRYPRO 793 is not capable of identifying whether it is mammo or regular film, it is necessary to use different sizes between the mammo and regular films as it has been so in the past. It is also necessary to make mammo or regular film setting per each film size using the “Film Info per Film” of the User Tool in advance.

Whereas the DRYPRO 793 is capable of identifying whether it is mammo or regular film, using the film type info in “Print Info”. (Set to mammo = DR Blue, regular = Blue)

1.3.7 Dedicated Reader

Installing an optional IEEE1394 board on the CS-3 will enable the CS-3 to function as the existing controllers for REGIUS 350. One unit each of REGIUS 350 can be interfaced to one CS-3. The control of the dedicated reader (REGIUS 350) can only be possible by the CS-3 that is connected to these.

Note that the JM plays no role in data communication between the CS-3 and the dedicated reader.

1.4 Setting the Host Name, IP Address

1.4.1 Setting the Host Name (PC name)

In the network where TCP/IP protocol is used, all devices which are connected to the network need identical IP address and host name(PC name).

<IMPORTANT> The host name of the CS-3 set at the factory is “CS1-0001” and that of the REGIUS 190 is “r170-0001”.

This host name must be unique in the network (different from all the rest).

When installing the CS-3(s) and REGIUS 190(s), set the host name (PC name) according to the rule prescribed below.

However, when the CS-3 and REGIUS 190 are networked in “1 to 1” configuration, and there is no other CS-1/CS-2/CS-3 nor REGIUS190/170, they can be connected using the factory setup.

<IMPORTANT> Host name is case sensitive. Pay attention when setting the host name.

Host Name of CS-3

Input the last 4 digits of the CS-3 serial number after “CS1-”.

ex) When the serial number of the CS-3 is “04320123”.

The host name of that CS-3 shall be;

CS1-0123

<IMPORTANT> When there is already existing CS-1 that has been connected to the existing network, assign the different host name (CS3-xxxx) so that it will not duplicate other host names.

Host Name of REGIUS 190

Input the last 4 digits of the REGIUS 190 serial number after “r170-”.

ex) When the serial number of the REGIUS 190 is “0456”.

The host name of that REGIUS 190 shall be;

r170-0456

<IMPORTANT> When connecting the REGIUS 170 to the same network, assign the different host name (r190-xxxx) so that it will not duplicate other host names.

Host Name of External JM

Set the host name similarly as CS-3 when an external JM is installed in the “n to m connection” system.

ex) When the serial number of the CS-3 that is used as the JM is “04320125”.

The host name of that JM (external) shall be;

CS1-0125

<IMPORTANT> However, on the “Network Set Up” screen of REGIUS 170, always set the host name (DBHOST) of the JM as “jm1-0001”(lower case) regardless of whether it is external JM or internal JM. Always set the back up JM as “jm1-0002”.

1.4.2 Setting the IP Address

Single Line Network The case where all devices to be connected are produced by the same manufacturer as CS-3, and simply a local network is to be created, it is recommended to use the predefined host names and IP addresses.

Device	Host Name	IP Address	Subnet Mask
REGIUS 190	r170-****	192.168.20.xxx	255.255.255.0
CS-3	CS1-****	192.168.20.nnn	255.255.255.0
External JM	CS1-****	192.168.20.180	255.255.255.0

- “****” indicates the serial number of the device (all are set to “0001” at the factory)
- “xxx” indicates the numbers to be set for each REGIUS 190 (all are set to 170 at the factory)
ex)

REGIUS 190 1st unit	: 192.168.20.170
REGIUS 190 2nd unit	: 192.168.20.171
REGIUS 190 3rd unit	: 192.168.20.172
- “nnn” indicates the numbers to be set for each CS-3 (all are set to “90” at the factory)
ex)

CS-3 1st unit	: 192.168.20.90
CS-3 2nd unit	: 192.168.20.91
CS-3 3rd unit	: 192.168.20.92
- Set identical IP addresses of IDS, host(s), printer(s) by referring to the installation manual attached to each device.

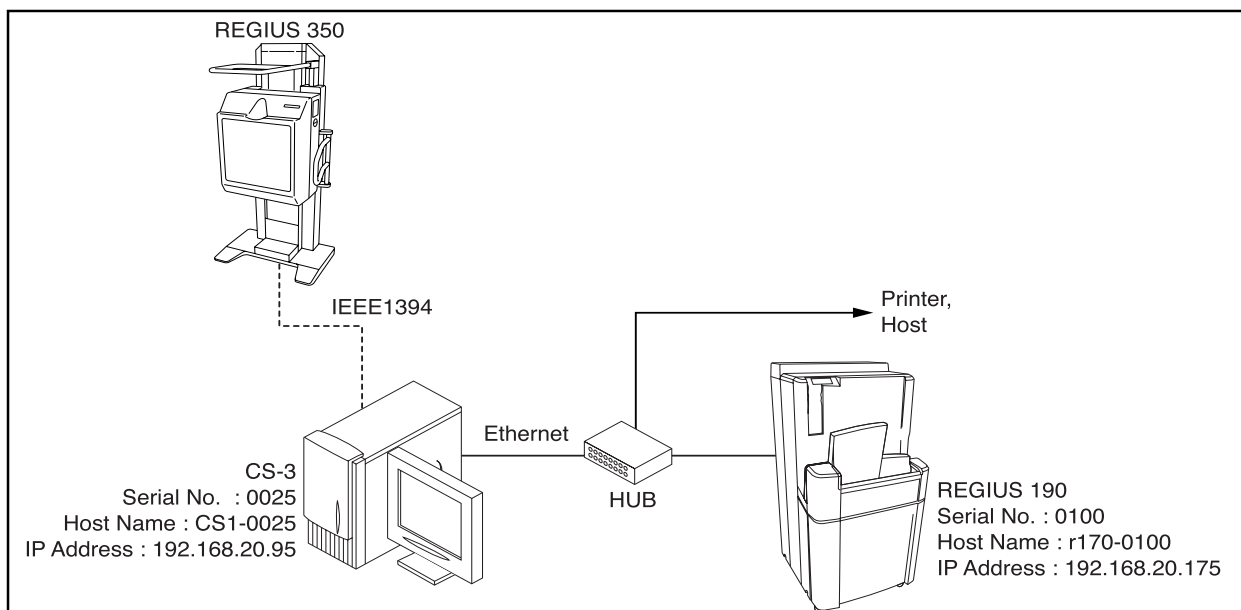
When interfacing to the existing network of the facility, obtain the IP addresses for each device from the network administrator of the facility in advance, and faithfully set these IP addresses.

Two-Line Network When creating a two-line network using an optional Ethernet board that is installed on the CS-3, use the original port (standard) for local network and the optional port for facility’s network.
Set the local network following the procedure described for “Single Line Network” in the above, and set the devices on the network interfaced to the optional port using the IP addresses obtained from the network administrator of the facility.

1.5 Example of System Configuration

A typical setting and system configuration where CS-3 and REGIUS 190 are networked is shown below. Refer to this when creating the network at the facility.

1.5.1 System Ex) -1 (standard 1 to 1 connection)



A standard system where CS-3 is connected to REGIUS 190 in 1 to 1 configuration. In this system, a JM incorporated in the CS-3 will be used. When the network is independent and not connected to other devices, connection between the CS-3 and REGIUS 190/170 can be established using the default setting (setting at the factory).

Setting (example) CS-3

Item to be set	Setting
Host Name of the PC	CS1-0025
IP Address	192.168.20.95
Subnet Mask	255.255.255.0
Internal Job Manager	ON
Cassette Registration	barcode Registration

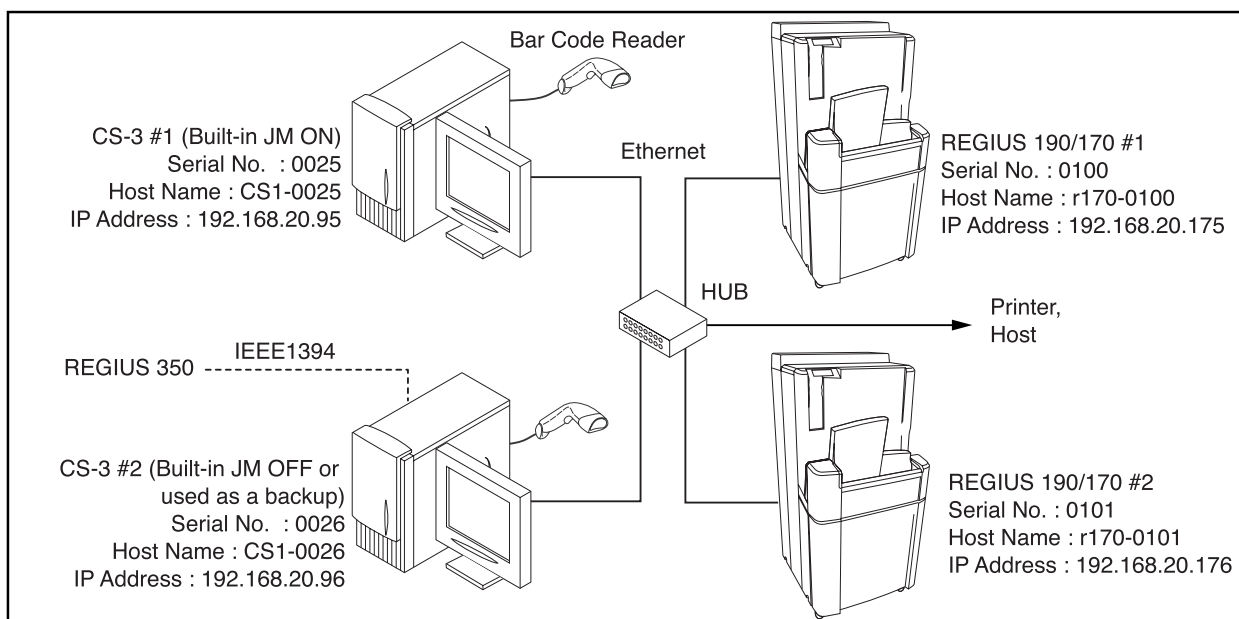
- REGIUS 190

Item to be set	Setting
Host Name	R170-0100
Host Name (on the Job Manager)	r170-0100
IP Address	192.168.20.175

Notes for system configuration

- REGIUS 170 can replace the REGIUS 190 in the above System Ex) -1. However, It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.
- It is necessary to install an optional board (IEEE1394 board) on the CS-3 when a dedicated reader (REGIUS 350) is interfaced.
- Both barcode registration (pre-registration) and manual registration (post-registration) can be selected for barcode registration. However, a barcode reader is necessary to use the REGIUS 170 in auto-registration mode.
- Reading the image at 43.75 μ m resolution using the REGIUS 190 requires a HUB supporting 1000base. Also use Category 5e cable as an Ethernet cable.

1.5.2 System-2 (n to m connection, up to 4 units)



The above example is a system of “n to m connection” where 4 or less units of CS-3 and REGIUS 170 in total are involved. JM function is managed by one CS-3. The similar configuration can be available with CS-3 x 3 units + REGIUS 170 x 1 unit or CS-3 x 1 units + REGIUS 170 x 3.

Setting (example) CS-3 #1(JM ON)

Item to be set	Setting
Host Name of the PC	CS1-0025
IP Address	192.168.20.95
Subnet Mask	255.255.255.0
Internal Job Manager	ON
Cassette Registration	barcode Registration

CS-3 #2

Item to be set	Setting
Host Name of the PC	CS1-0026
IP Address	192.168.20.96
Subnet Mask	255.255.255.0
Internal Job Manager	OFF
Host Name (comm. setting)	JM1-0001
IP Address (comm. setting)	192.168.20.95
Cassette Registration	barcode Registration

REGIUS 190/170 #1

Item to be set	Setting
Host Name	R170-0100 R190-0100 (when REGIUS 190 and 170 are mix-used)
Host Name (on the Job Manager)	r170-0100 r190-0100 (when REGIUS 190 and 170 are mix-used)
IP Address	192.168.20.175

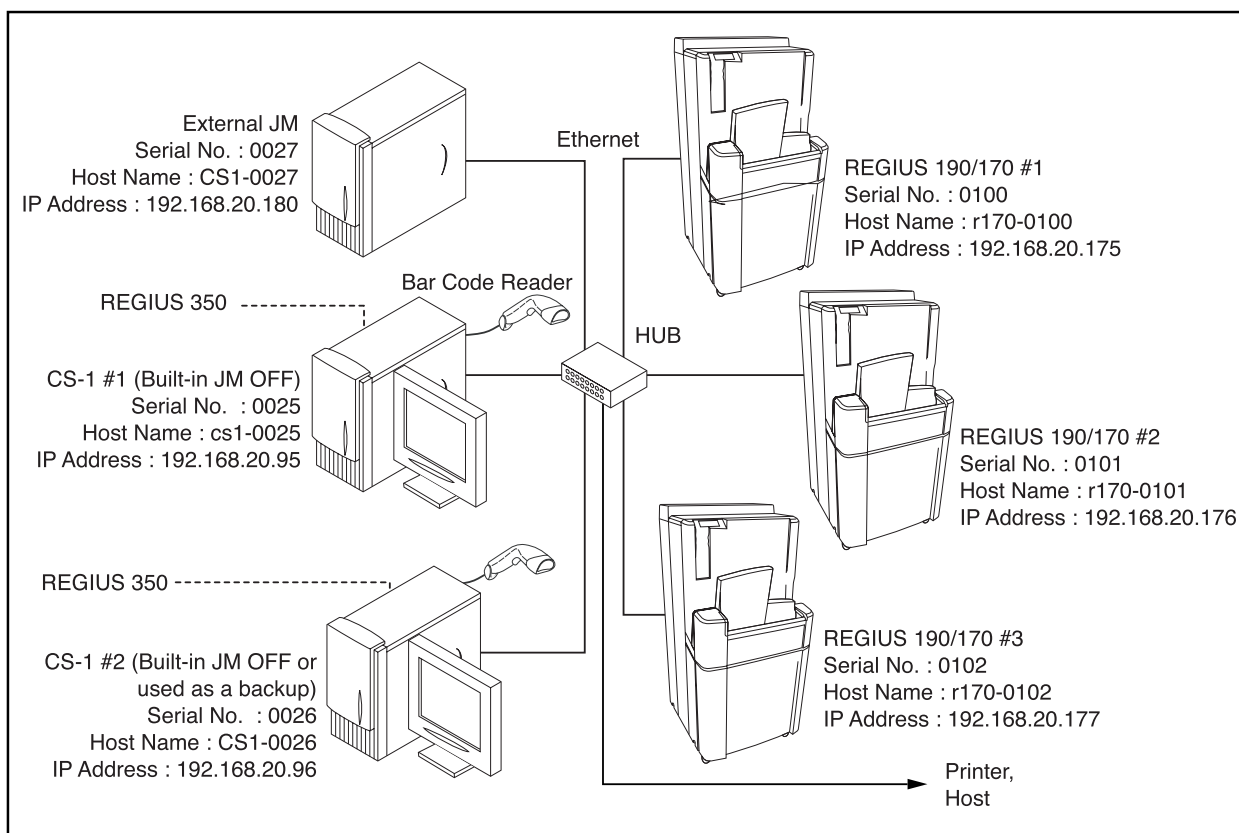
REGIUS 190/170 #2

Item to be set	Setting
Host Name	R170-0101 R190-0101 (when REGIUS 190 and 170 are mix-used)
Host Name (on the Job Manager)	r170-0101 r190-0101 (when REGIUS 190 and 170 are mix-used)
IP Address	192.168.20.176

Remarks for Creating the System

- It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.
- Do not connect a dedicated reader (REGIUS 350) to the CS-3 that also functions as JM. Exception is the case where only one CS-3 is present.
- barcode registration should be standard. barcode reader is essential for each CS-3.
- When starting/terminating the CS-3(s), start the CS-3 that functions as JM first, and shutdown that CS-3 last.
- It is necessary to install an optional board (IEEE1394 board) on the CS-3 when a dedicated reader (REGIUS 350) is interfaced.
- When the image is read at 43.75mm using the REGIUS 190, use the HUB supporting 1000base. Also use category 5e Ethernet cable.
- When 2 or more CS-3s are present in the network, one of CS-3s whose internal JM has been turned OFF can be set up as a back up JM for the case when the standard JM(internal) becomes faulty. When setting one of CS-3s as a back up, select the CS-3 which has the least workload in the descending order shown below.
 1. REGIUS 350 is not connected, and low volume of examination images.
 2. REGIUS 350 is not connected, and high volume of examination images.
 3. REGIUS 350 is connected, and low volume of examination images.

1.5.3 System-3 (n to m connection, 5 or more units)



The above example is a system of “n to m connection” where 5 or more units of CS-3 and REGIUS 170 in total are involved. An external JM is essential.

Setting (example) CS-3 #1

Item to be set	Setting
Host Name of the PC	CS1-0025
IP Address	192.168.20.95
Subnet Mask	255.255.255.0
Internal Job Manager	OFF
Host Name (comm. setting)	JM1-0001
IP Address (comm. setting)	192.168.20.180
Cassette Registration	barcode Registration

CS-3 #2

Item to be set	Setting
Host Name of the PC	CS1-0026
IP Address	192.168.20.96
Subnet Mask	255.255.255.0
Internal Job Manager	OFF
Host Name (comm. setting)	JM1-0001

Item to be set	Setting
IP Address (comm. setting)	192.168.20.180
Cassette Registration	barcode Registration

REGIUS 190/170 #1

Item to be set	Setting
Host Name	R170-0100 R190-0100 (when REGIUS 190 and 170 are mix-used)
Host Name (on the Job Manager)	r170-0100 r190-0100 (when REGIUS 190 and 170 are mix-used)
IP Address	192.168.20.175

REGIUS 190/170 #2

Item to be set	Setting
Host Name	R170-0101 R190-0101 (when REGIUS 190 and 170 are mix-used)
Host Name (on the Job Manager)	r170-0101
IP Address	192.168.20.176

REGIUS 190/170 #3

Item to be set	Setting
Host Name	R170-0103 R190-0103 (when REGIUS 190 and 170 are mix-used)
Host Name (on the Job Manager)	r170-0103 r190-0103 (when REGIUS 190 and 170 are mix-used)
IP Address	192.168.20.177

External JM

Item to be set	Setting
Host Name of the PC	CS1-0027
IP Address	192.168.20.180
Subnet Mask	255.255.255.0
Internal Job Manager	ON
Cassette Registration	barcode Registration

Remarks for Creating the System

- It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.
- Keep the power of the JM ON. (keep activated)
- barcode registration should be standard. barcode reader is essential for each CS-3.
- It is necessary to install an optional board (IEEE1394 board) on the CS-3 when a dedicated reader (REGIUS 350) is interfaced.
- It is possible to add another external JM and to set it as a back up JM for the case when the standard JM(internal) becomes faulty. It is also possible to set up one of CS-3s as a back up.
- When the image is read at 43.75mm using the REGIUS 190, use the HUB supporting 1000base. Also use category 5e Ethernet cable.
- However, when setting the CS-3 as a back up JM, select the CS-3 which has the least workload in the descending order shown below.
 1. REGIUS 350 is not connected, and low volume of examination images.
 2. REGIUS 350 is not connected, and high volume of examination images.
 3. REGIUS 350 is connected, and low volume of examination images.

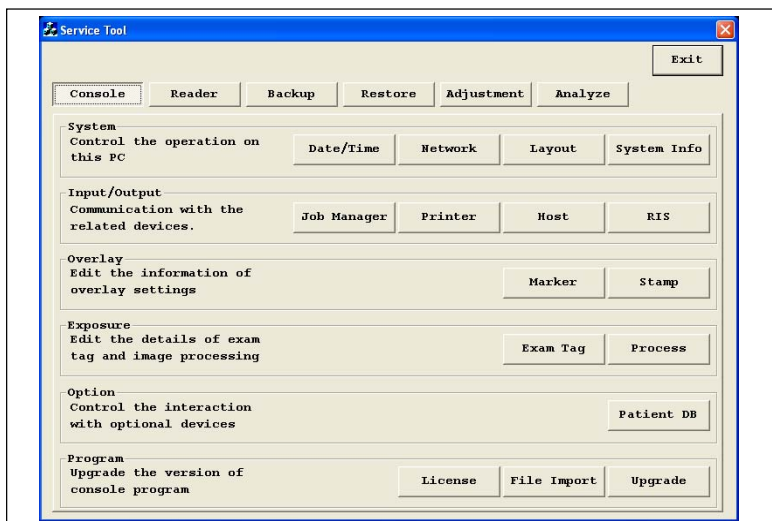
Note that only one back up JM can be set up for each system.

1.6 Service Tool Screens of CS-3

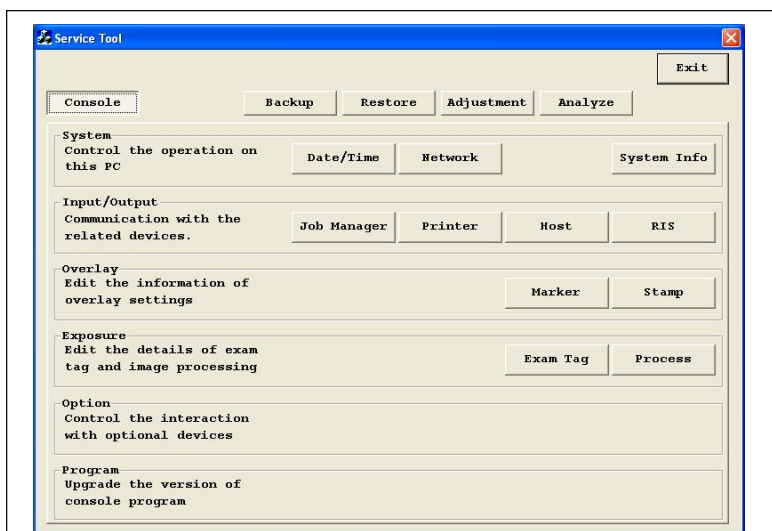
1.6.1 Service Tool Screens

Setting and maintenance of the CS-3 can be implemented by starting the service tool. As shown in the screen flow of the latter page, there are two service tool initial screens, one is activated from the system menu of CS-1/CS-1/CS-3 application, and the other is activated from the REGIUS Service Screen. There is a difference in number of set items between these screens. Use the service tool activated from the REGIUS Service Screen for the setting at the time of installation.

Screens when Started from System Menu



Screen when Started from REGIUS Service Screen

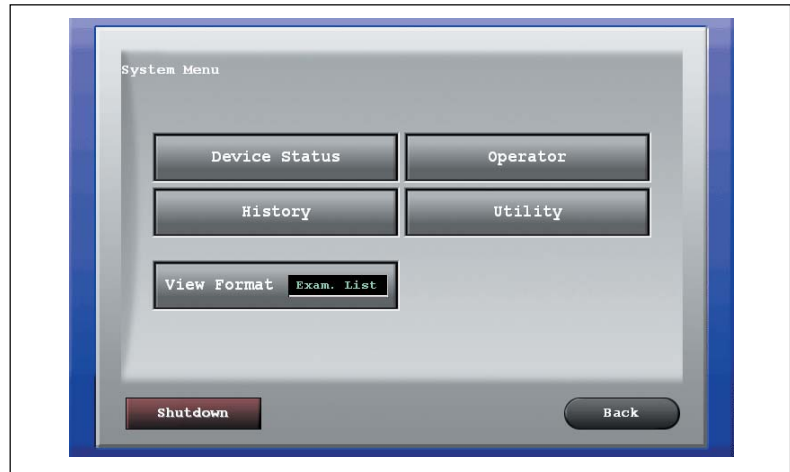


◆How to open the REGIUS Service Screen

Following is the procedure to open the REGIUS Service Screen.

[IMPORTANT]The REGIUS Service Screen can be opened only by the procedure described below. Note that clicking [Shutdown] in the system menu will automatically close the Windows, and turn off the CS-3.

1. Click [Konica Minolta] on the initial screen of CS-1/CS-3 application.
System menu will be shown.

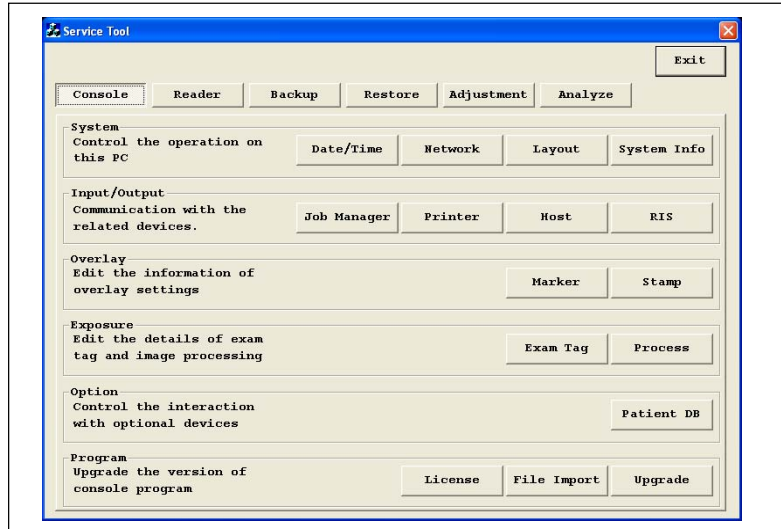


2. Click [Utility] of the system menu.
Password input screen will be shown.



3. Input the service tool password (5678), then click [GO].

Service tool will start.



4. Click [Exit].

Confirmation dialogue will be shown.

5. Click [Yes].

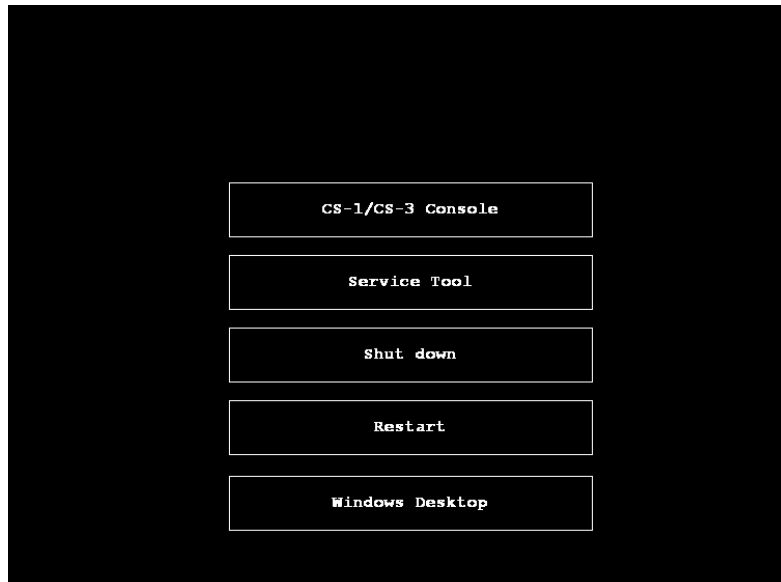
The screen returns to the system menu.

6. Click [Shutdown] in the system menu.

Confirmation dialogue will be shown.

7. Click [Yes]

REGIUS Service Screen (REGIUS Service Screen) will be shown after exiting the CS-1/CS-3 application.



On this screen, clicking [Service Tool] will show the service tool screen on which you can set and change all set items for CS-3.

Also available on the REGIUS Service Screen are followings.

- Clicking [CS3] will start the CS-1/CS-3 application software.
- Clicking [Shutdown] will terminate the Windows, and turns the power of CS-3 off.
- Clicking [Restart] will restart the CS-3 and the CS-1/CS-3 application starts. Clicking [Windows Desktop] will exit the REGIUS Service Screen, and bring the Windows desktop to the screen.

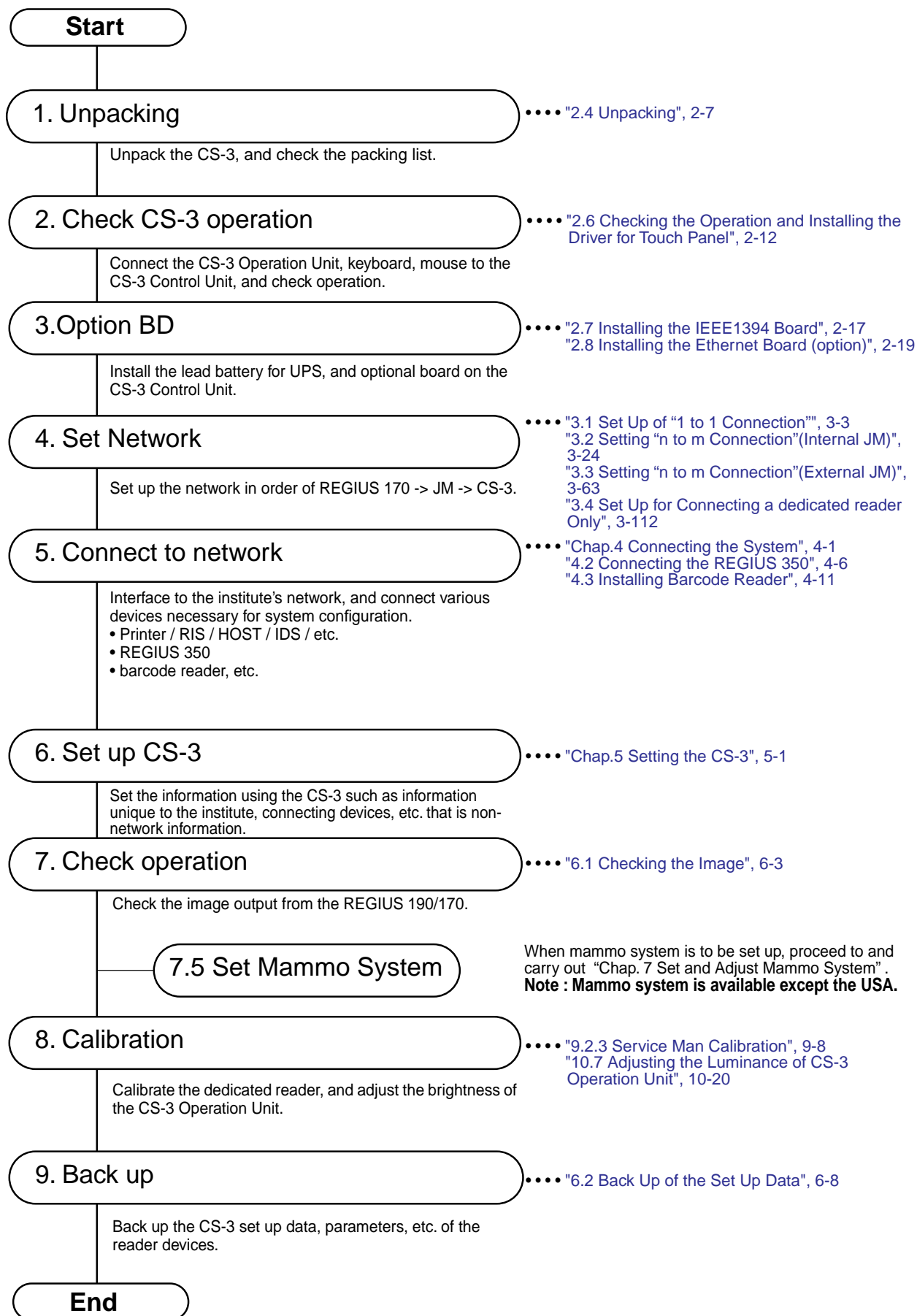
Chap.2

Installing CS-3

Verifying the operation of CS-3 alone, and prepare for connection of a cassette reader.

2.1 Installation Flow

Overall workflow for installation is listed below.



2.2 Checks Prior to Installation

Before installation work to be started, check the following items.

2.2.1 Installation Condition

Check that the installation site satisfies the condition listed below.

Installation Site

- Install the device in a site where it is not exposed to water or floor wax.
- Install the device in a site where there is no likelihood of being adversely affected by atmospheric pressure, temperature, humidity, drafts, light, dust, or air containing salt, or sulfur, etc.
- Install the device on a flat surface where it is free from vibration, or physical shock (also to be avoided during transportation).
- Install the device in a site where chemical agents are not stored.
- Install the device in a site where any gas is not generated.
- Install the device in a site where any electrical noise source does not exist.
- Lay the cable so that it is not tripped over by the staff working around the device.
- Install the device in a site where the air inlet and outlet are not blocked.

Installation Space

Install the device in a site where minimum 150mm spaces in front and in rear of the CS-3 can be secured.

2.2.2 System Configuration

Works and setups required for the CS-3 at the time of installation may vary depending on the system configuration.

- Connection type of CS-3 and REGIUS 170. (whether the connection is made 1 to 1 or m to n)
- It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.
- In cases where the CS-3 is networked with existing CS-1(s) in “n to m” configuration or REGIUS 190 is connected with CS-1, it is required to update the software version of the CS-1 to V2.00Rxx or later.
- Use optional JM? (essential when the connection is m to n)
- Use backup JM?
- Registration method of cassette. (with barcode reader or not)
A barcode reader is essential when the connection is m to n.
When the registration with a barcode reader (advance registration) is selected, install the barcode reader to the CS-3.
- Use a dedicated reader for any CS-3? If yes, it is necessary to know which CS-3 will be connected to such reader. It is necessary to install an optional board (IEEE1394 board) on the CS-3 when a dedicated reader (REGIUS 350) is interfaced.

- Use 2 network systems?

When using 2 network systems, it is necessary to install optional Ethernet board on the CS-3.

- Need optional equipments?

To use the CS-3 Operation Unit or keyboard hanged on the wall, a wall fixture (option) is necessary.

<Important>To use the CS-3 Operation Unit or keyboard hanged on the wall, entrust the work to drill the wall to the contractor.

2.2.3 Network Condition

In the case that the CS-3 is connected to the facility's network, acquire the following information by interviewing the network manager of the facility.

- IP address of CS-3, REGIUS 170 (and optional JM).
- When a setup for gateway is necessary, IP address of the gateway.

2.3 Tools and Jigs Required for Installation

Prepare the following tools and jigs before starting the installation.

Item	Purpose
Luminance Meter	To adjust the luminance of the CS-3 operation unit. <ul style="list-style-type: none">• Prepare the cable to connect the Luminance Meter to the CS-3.
Dose Meter	Essential if the reader device is to be calibrated.
Wrist Strap	Need to wear when installing the lead battery, optional board on the CS-3.
Maintenance PC	
Floppy Disks CD-Rs	To back up the setup data of the CS-3.
Cross cable for Ethernet or Ethernet Cable & Hub	To set the network for REGIUS 170
Double-Faced Adhesive Tape	To fix the stand for barcode reader
3P-2P AC Plug Adapter (a few pcs)	May be needed for checking the CS-3 operation at the site other than installation site or for temporary installation of REGIUS 170
30cm Steel Scale	To be used when calibrating the dedicated reader.

2.4 Unpacking

2.4.1 Unpacking The CS-3

Packings of CS-3 are comprised of 2 pcs, i.e., CS-3 control unit, CS-3 operation unit. Contents of the packings are shown below.

At the arrival of the good, check that there is no loss or lack of pieces of each item.

- CS-3 for the use as JM has no CS-3 operation unit, CS-3 operation unit stand.

◆CS-3 Control Unit

Parts	Q'tty	Remarks
CS-3 Control Unit Main Body	1	
PS/2 Keyboard	1	
PS/2 Mouse	1	
Serial Cable	1	
Power Cable	1	
AC Adaptor	1	for 3p-2p conversion
Upright Stand	1	
Air Upflow Guide	1	
Operation Manual	1	
IBM Attached Documents	1set	

◆CS-3 Operation Unit

Parts	Q'tty	Remarks
CS-3 Operation Unit Main Body	1	
Power Cable	1	
AC Adapter	1	for 3p-2p conversion
Signal Cable	1	VGA cable
USB Cable	1	for touch panel
Stereo Mini-Jack cable	1	for speaker
Operation Manual	1	
Wall-Hung Arm Fixing Screws	4	
Touch Panel Driver Software (CD-ROM)	1	

2.4.2 Options

Packing list of CS-3 options are as follows.

◆IEEE1394 Board

Parts	Q'tty	Remarks
IEEE1394 Board	1	
User's Manual	1	
Low Profile PCI Mount Metal	1	Not to be used
Utility Software (CD-ROM)	1	

◆Ethernet Board

Parts	Q'tty	Remarks
LAN Board	1	
Read Me First	1	
Driver Software (CD-ROM)		

◆Barcode Reader (single)

Parts	Q'tty	Remarks
Single barcode Reader	1	
Synapse Cable	1	Preconnected to the barcode reader
USB Converter Cable	1	Preconnected to the synapse cable
System Stand	1	Separated into mount and neck
Thumbscrew	1	Preattached to the neck
Sprint Washer	1	Preattached to the neck

◆Barcode Reader (multiple)

Parts	Q'tty	Remarks
Multiple barcode Reader	1	
USB Connector Cable	1	
Fixing Plate	1	to fix the barcode reader
Base Plate	1	to fix the barcode reader
Wood Screw	3	to fix the barcode reader
Flat-Headed Screw	4	to fix the base plate

◆CS-3 RIS Client

Parts	Q'tty	Remarks
License Sheet	1	
License Seal	1	
Operation Sheets	1 set	

◆CS-3 Portable Mode Software

Parts	Q'tty	Remarks
License Sheet	1	
License Seal	1	
Barcode Label	2	
Operation Sheets	1 set	

◆CS-3 Portable System Handy Terminal

Parts	Q'tty	Remarks
Handy Terminal Main Body	1	
System Battery (rechargeable)	1	

◆CS-3 Portable System Cradle

Parts	Q'tty	Remarks
Cradle	1	
AC Adapter	1	

2.5 Temporary Connection of CS-3

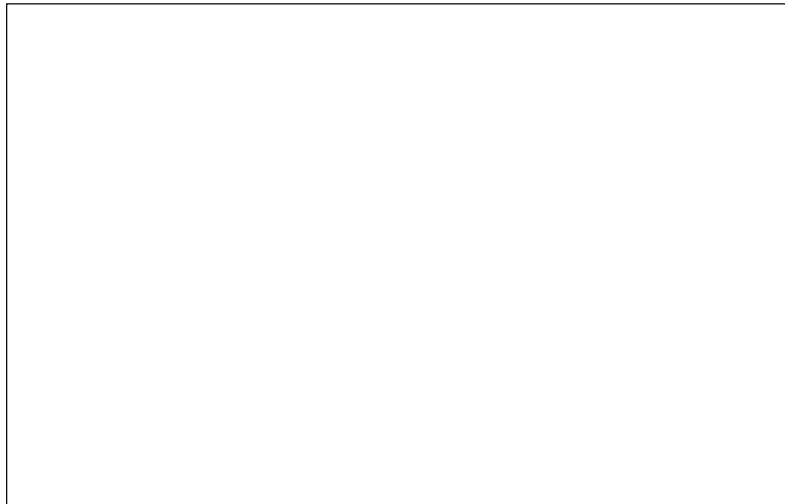
Temporary connect the CS-3 and CS-3 Operation Panel after unpacking, check that they are correctly operating.

- In a same manner, check the operation of the CS-3 that works together with an external JM. Because this type of CS-3 has no operation unit as an accessory, temporarily connect the CS-3 Operation Unit for check purpose.

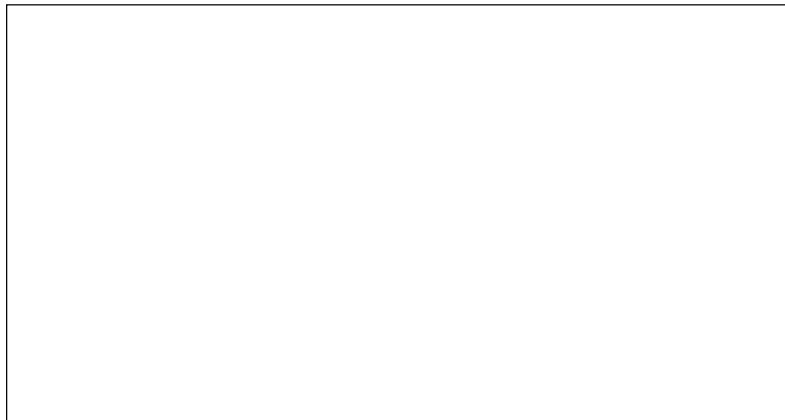
2.5.1 Removing the Left Cover of CS-3 Control Unit

Connect the CS-3 Operation Unit, keyboard and mouse to the CS-3 Control Unit.

1. Confirm that the power of the CS-3 Control Unit is turned off.
2. Connect between the CS-3 Control Unit and CS-3 Operation Unit with the accessory signal cable, USB cable and mini-jack cable.



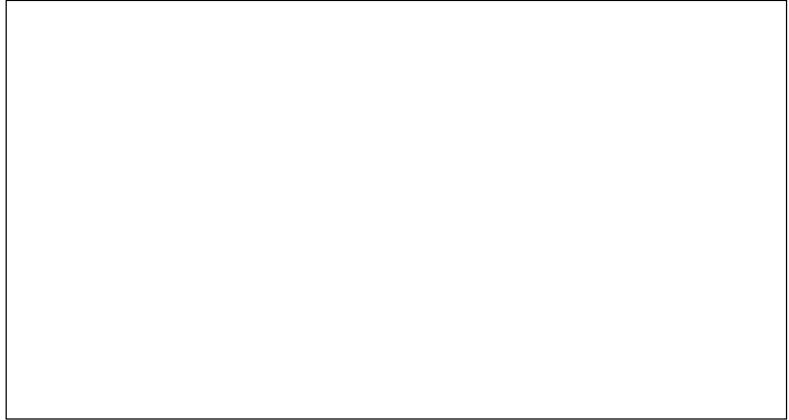
3. Connect the cable from the keyboard to the PS/2 Keyboard Connector and the mouse cable to the PS/2 Mouse Connector of the CS-3 Operation Unit.



-
4. Connect the accessory power cable to the power connector of the CS-3 Control Unit.



5. Connect the accessory power cable to the power connector of the CS-3 Operation Unit.



6. Connect the power cables from CS-3 Operation Unit and CS-3 Control Unit to the outlet.

Now it is ready to start up the CS-3. Proceed to the operation check and installation of touch panel driver software.

2.6 Checking the Operation and Installing the Driver for Touch Panel

Turn ON the power, and start up the CS-3 in order to check the operation of CS-3 alone. Turning ON the power of the CS-3 with the CS-3 Operation Unit connected will automatically initiate an installation of the driver for touch panel due to the Plug-and-Play function.

2.6.1 Starting Up the CS-3

1. Turn on the power of the CS-3 Operation Unit -> CS-3 Control Unit in order.
 - When the start up of the CS-3 is successful, a start screen of WindowsXP will be displayed on the CS-3 Operation Unit, and start up of CS-1/CS-3 application software initiates.
 - Display of the “Exam Search” screen as shown below indicates everything is normal with CS-3 Control Unit and CS-3 Operation Unit.



2.6.2 Installing the Driver for Touch Panel

Then proceed to the installation of the touch panel driver software.

- To install the touch panel driver, shut down the CS-1/CS-3 application first, then operate on the Windows desktop.

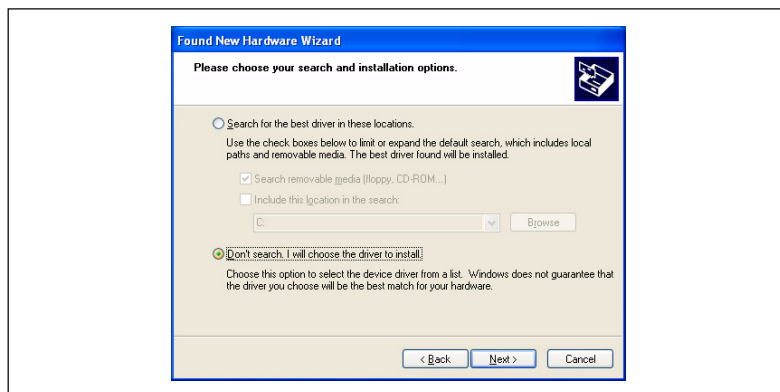
<Important> It is necessary to go through the “REGIUS Service” screen to display the Windows desktop. Note that shutting down directly using the system menu by clicking “Shut-down” will automatically shut down the Windows, resulting in power off of the CS-3. Refer to “1.6 Service Tool Screen” for details of opening the “REGIUS Service” screen.

1. Shut down the CS-1/CS-3 application, and display the “REGIUS Service” screen.
Refer to “1.6 Service Tool Screen” for the procedure to display the “REGIUS Service” screen.

2. Click [Windows Desktop].



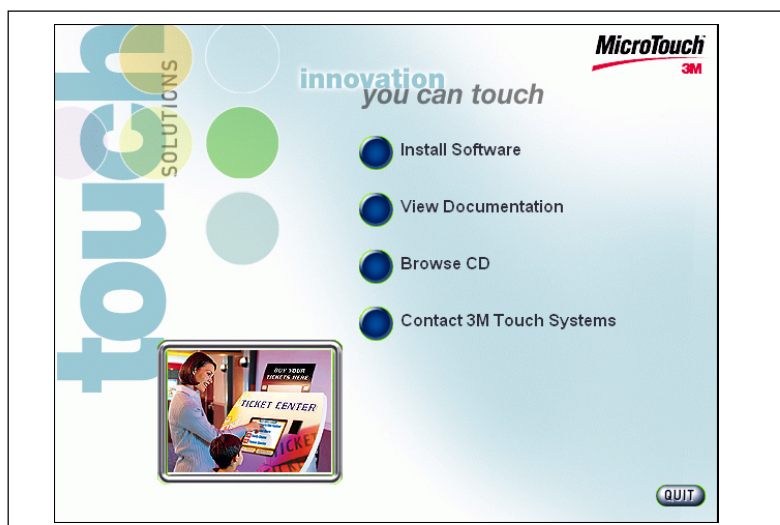
- REGIUS Service Screen closes, and the Windows desktop will be shown.
- “Found New Hardware Wizard” screen is displayed on the desktop.



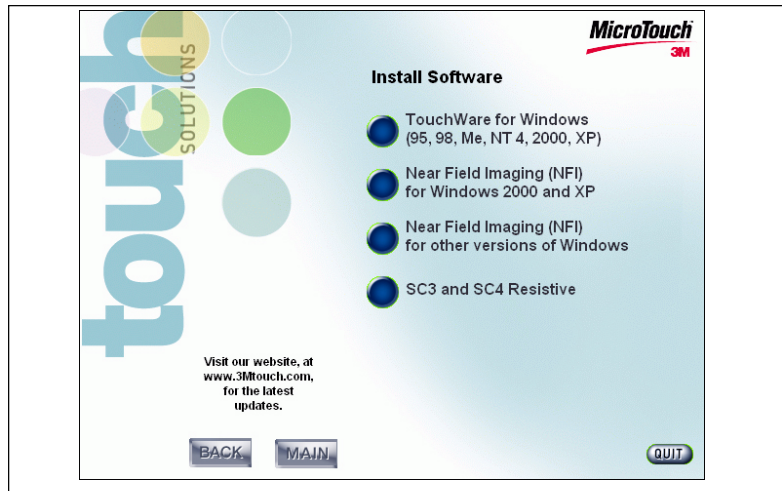
3. Click [Cancel].

4. Insert into the CD-RW drive the CD-ROM that is provided in the CS-3 Operation Unit packing.

CD will be auto-started, and wait for the following screen to appear.

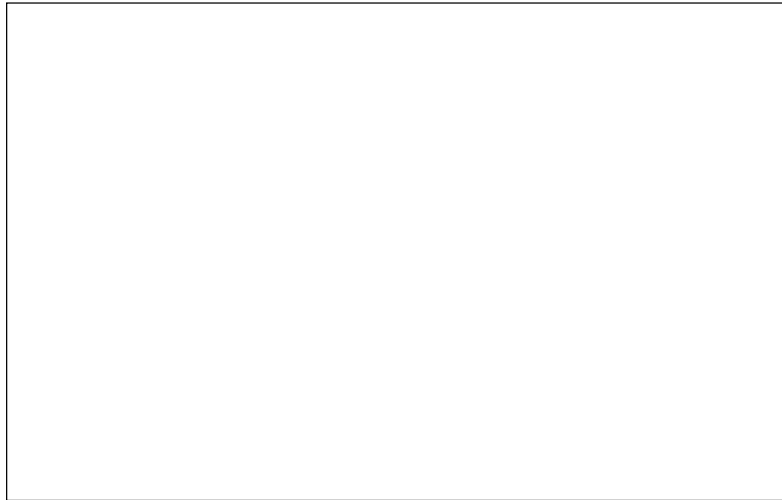


5. Click [Install Software].

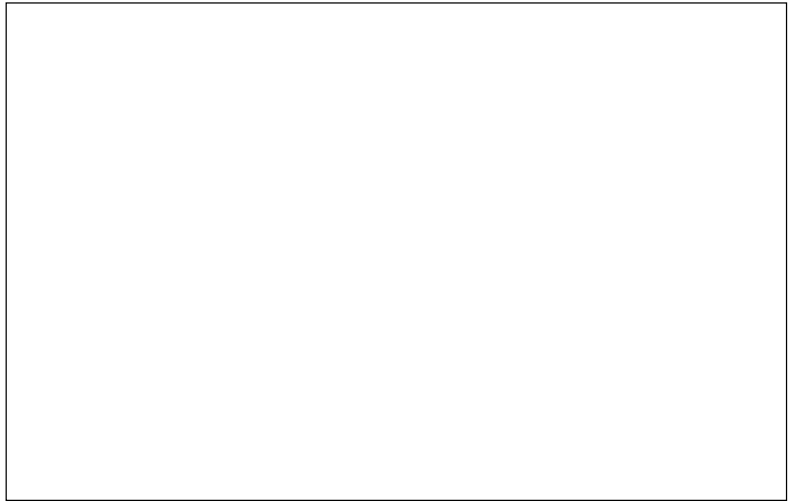


6. Click [TouchWare for Windows(95,98,Me,NT4,2000,XP)].

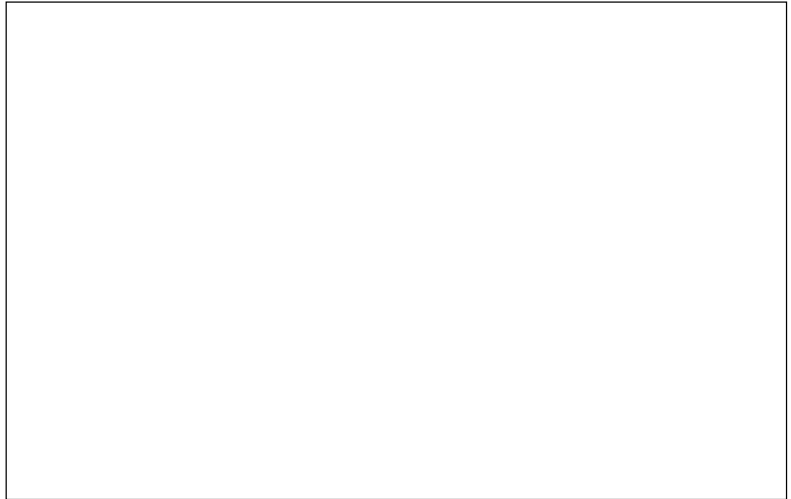
A Wizard will start to install the touch panel driver software.



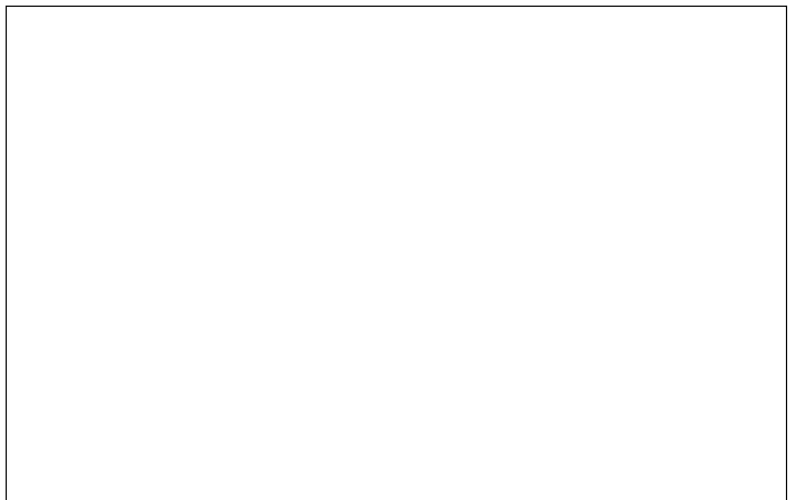
7. Click [Next].



8. Click [Agree] , then [>].

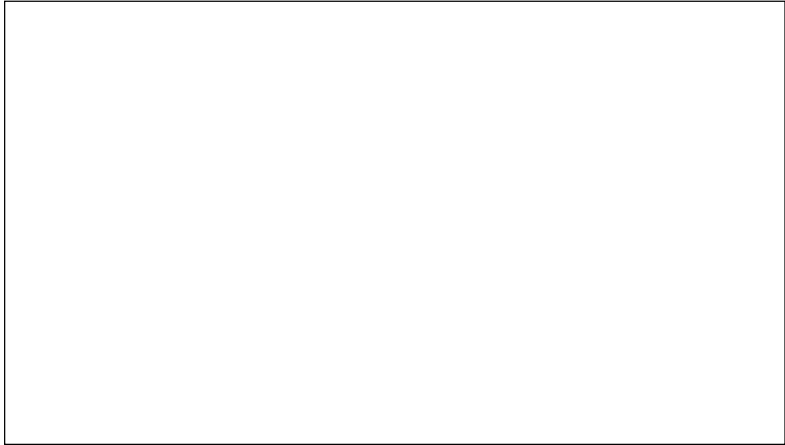


9. Click [USB] , then [>].



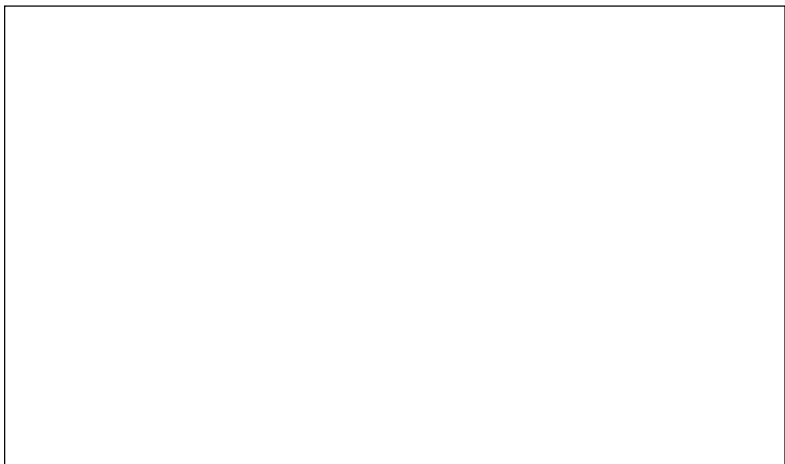
10. Click [Standard Install], then [>].

Copy of files initiates, followed by display of the screen below.



11. Click [Cont].

Installation of the driver initiates.



12. Click [Yes, I read "Readme"] to untick the check mark, then click [End].



13. Click [OK].

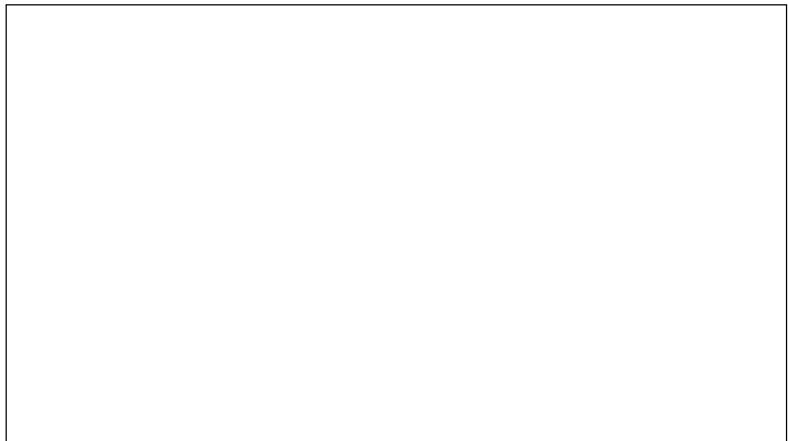
2.7 Installing the IEEE1394 Board

Install an optional IEEE1394 board on the CS-3 Control Unit in the case that the REGIUS 350 is interfaced to the CS-3.

Caution Always wear a wrist strap when installing the board.



1. Turn off the power of the CS-3 Control Unit and CS-3 Operation Unit.
2. Disconnect the power cable, USB cable, signal cable, stereo mini-jack cable from the rear of the CS-3 Control Unit.
3. Open the top cover by pressing the buttons located on both right and left sides of the CS-3 Control Unit.
4. Remove fixing screws that are retaining the slot cover for the PCI slot, and remove the slot cover.



5. Slowly insert the IEEE1394 board into the slot with its components side facing the bottom of CS-3 control unit.

6. Check that the board is firmly inserted in the slot, then fix the slot cover using the screws that were once removed in step.2.
 - Proceed to the step 4 of “2.8 Installing the Ethernet Board” when installing an optional Ethernet board.
7. After completing the installation of the board, close the top cover. Then connect the power cable, USB cable, signal cable, stereo mini-jack cable.
 - After completing the board installation, implement "[2.9 Installing and verifying the Driver](#)", 2-21.

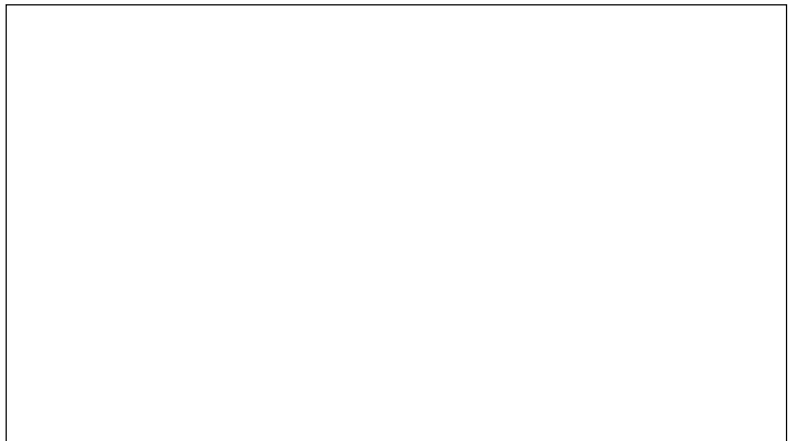
2.8 Installing the Ethernet Board (option)

An additional Ethernet board will be necessary when 2 lines of Networking should be controlled by the CS-3 as in the case that separate lines for information communication and image data are needed.

Caution Always wear a wrist strap when installing the board.



1. Turn off the power of the CS-3 Control Unit and CS-3 Operation Unit.
2. Disconnect the power cable, USB cable, signal cable, stereo mini-jack cable from the rear of the CS-3 Control Unit.
3. Open the top cover by pressing the buttons located on both right and left sides of the CS-3 Control Unit.
4. Remove fixing screws that are retaining the slot cover for the PCI slot, and remove the slot cover.



5. Slowly insert the Ethernet board into the slot with its components side facing the bottom of CS-3 control unit.

6. Check that the board is firmly inserted in the slot, then fix the slot cover using the screws that were once removed in step.2.
7. After completing the installation of the board, close the top cover. Then connect the power cable, USB cable, signal cable, stereo mini-jack cable.
 - After completing the board installation, implement "[2.9 Installing and verifying the Driver](#)", 2-21.

2.9 Installing and verifying the Driver

Installation of the drivers for the installed boards will be automatically performed by Plug and Play function of the Windows upon the start of the CS-3. Follow the procedures below to install the drivers and verify the installation.

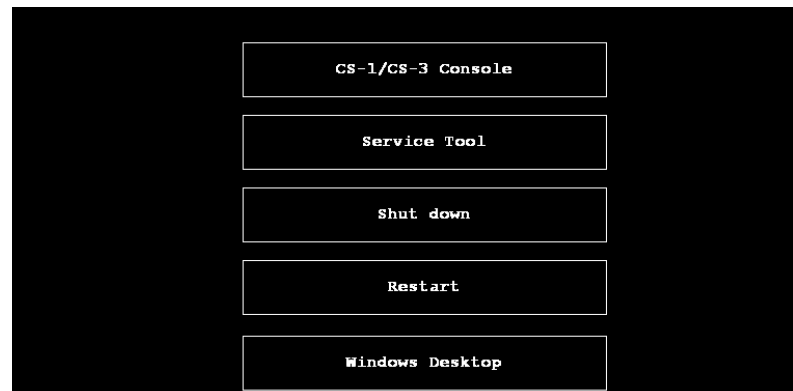
1. Press the power button of the CS-3 Operation Unit.
2. Open the front cover of CS-3 Control Unit, and press the power button.
WindowsXP starts up, then CS-1/CS-3 application software starts up.
Installation of drivers for optional boards will be automatically initiated due to Plug and Play function of Windows.

2.9.1 Checking the Driver

Check on the Windows desktop that the driver is properly installed.

<Important>It is necessary first to open the REGIUS Service Screen in order to bring the Windows desk top to the screen. Clicking [Shutdown] on the system menu will automatically terminate the Windows and turn the power of CS-3 off. Refer to "1.6.1 Service Tool Screens", 1-22 for the procedure to open the REGIUS Service Screen.

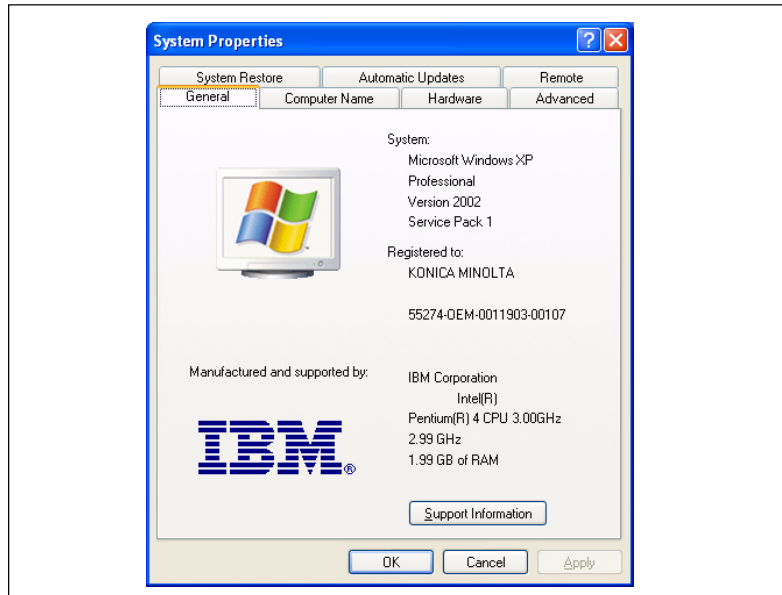
1. Click [Windows Desktop].



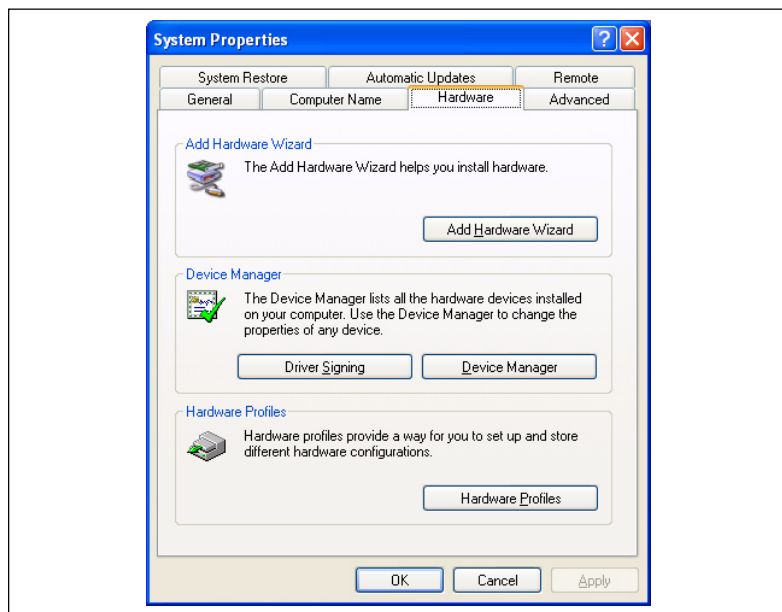
REGIUS Service Screen closes, and the Windows desktop will be shown.

2. Select [Control Panel] of [Start] menu.
Control panel will be displayed.

3. Double-click [System] of the Control Panel.
Properties dialogue of the system will be displayed.

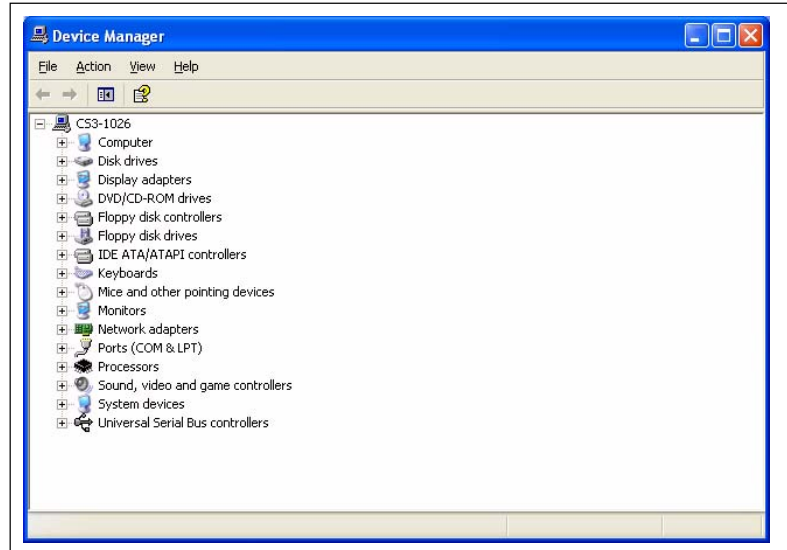


4. Click [Hardware] tab.



5. Click [Device Manager...].

Device manager dialogue will be shown.

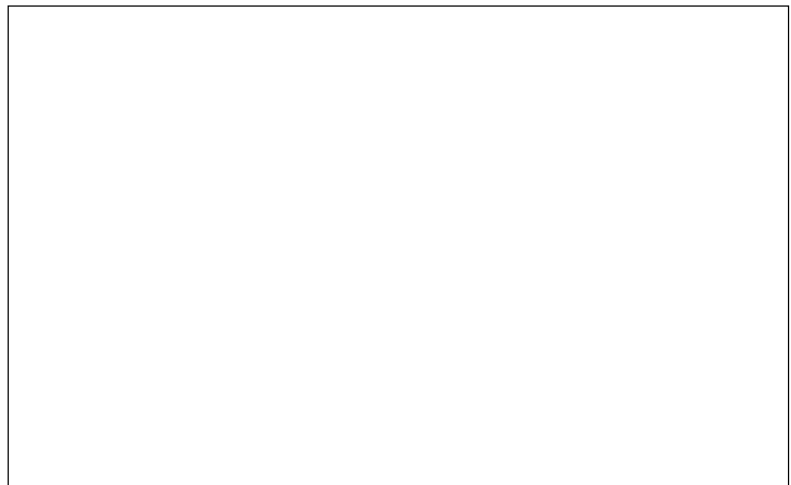


When an IEEE1394 Board is installed

1. Double-click "IEEE 1394 Bus host controllers", and confirm that "VIA OHCI Compliant IEEE 1394 Host Controller" is shown.



2. Double-click "VIA OHCI Compliant IEEE 1394 Host Controller".
"VIA OHCI Compliant IEEE 1394 Host Controller Properties" will be shown.



3. Check on the “Device Status” that “This device is working properly”.
4. Click “OK” and exit the properties dialogue.

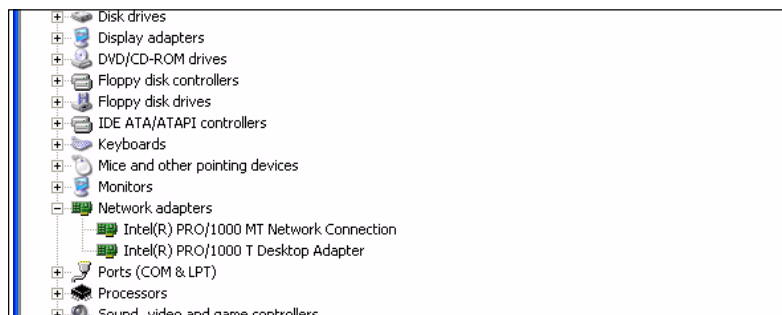
When an optional Ethernet board is installed, proceed to the “When an Ethernet Board is installed”.

5. Exit “Device Manager”, “System Properties”.

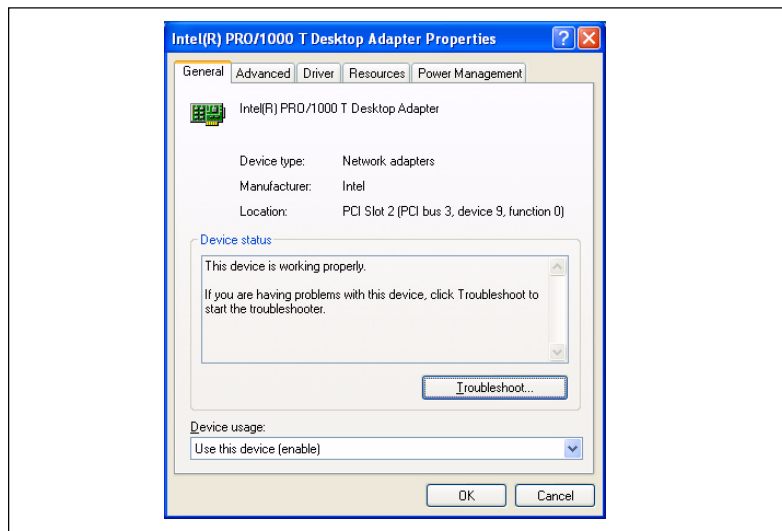
The above procedures complete the installation of IEEE1394 board.

When an Ethernet Board is Installed

1. Double-click “Network Adapters”, and confirm that “Intel (R) PRO/1000 T Desktop Adaptor” is shown.



2. Double-click “Intel (R) PRO/1000 T Desktop Adaptor”.
- “Intel (R) PRO/1000 T Desktop Adaptor properties” will be shown.



3. Check on the “Device Status” that “This device is working properly”.
4. Click “OK” to exit the properties dialogue.

2.9.2 Completing the installation

1. Having verified the installation of the driver, click “Start” of the task bar, and select “Shutdown (U)” to close the Windows.
Upon termination of the Windows, CS-3 will automatically turn off.

Completing the above procedures will set up once CS-3. To set up several CS-3s, follow the procedures in ["2.4 Unpacking", 2-7](#), ["2.9 Installing and verifying the Driver", 2-21](#).

Then, connect with the REGIUS 190, and set up the REGIUS 190, JM, and CS-3 network. When it is necessary to connect several REGIUS 170s or change IP address of CS-3 or REGIUS 190 depending on the facility's condition, first set up the network condition of REGIUS 190.

When only dedicated reader(s) are connected to the CS-3, only the network setting of the CS-3 should be implemented.

Chap.3

Setting the Network

Carry out a setup in order to interface CS-3, REGIUS 1 170, JM to the network.

Since the set up procedure is different depending on the system configuration, in this chapter, 3 examples, i.e. "1 to 1 connection, "n to m connection (4 units or less)", and "n to m (5 units or more)" are separately described.

Note that the network setup on the CS-3 described in this chapter is the complete instruction when the CS-3 is connected only to the dedicate reader.

Also note that the network setup described in this chapter is the basis applicable to the cases where normal examination and contact mammo examination systems are configured.

For various settings available on each set up screen, refer to Chapter 13 "[Service Tool Screens](#)".

3.1 Set Up of "1 to 1 Connection"

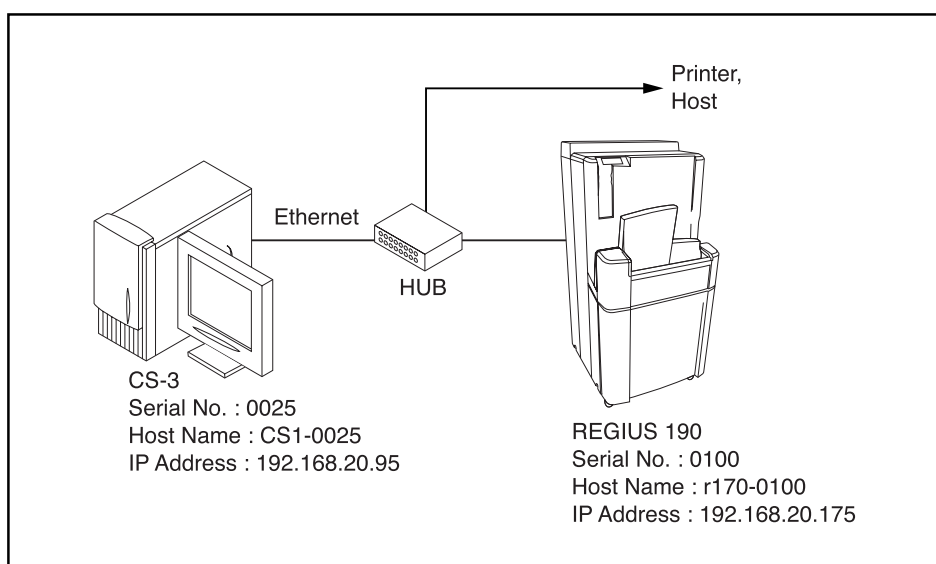
In this paragraph, the procedure how to connect single CS-3 to single REGIUS 190 by means of "1 to 1 connection".

Small-sized network such as connecting once unit each of CS-3, REGIUS 190 and Konica Minolta-made printer can be created without changing the settings made at the factory before the shipment.

However, for the case described below, change the setting of CS-3 and REGIUS 190 according to the procedure described in this paragraph.

- To connect to the existing network of the facility.
- To connect several units of "1 to 1 connection" to the same network.

Explanations follows here is based on the settings as shown below.



<Important>In the "1 to 1" system, either "barcode Registration" or "Manual Registration" can be selected. However, to enable the "barcode Registration", it is necessary to install a bar-code reader on the CS-3.

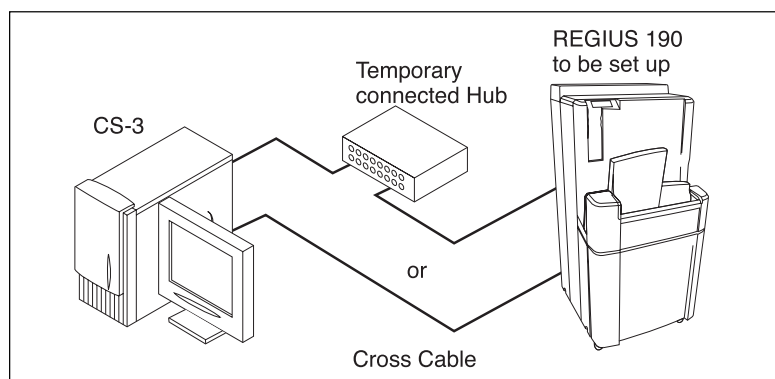
3.1.1 Network Setting of REGIUS 190

Temporary Connection of CS-3 and REGIUS 190/170

To enable the CS-3 to implement the set up of REGIUS 190 via Ethernet, both have been set up at the factory so that they can communicate using the factory setting. The set up of REGIUS 190 in the below shall be made by temporary connecting the CS-3 in "1 to 1" configuration.

1. Plug the power cables of CS-3 Control Unit, CS-3 Operation Unit, and REGIUS 190 into wall outlet.
2. Connect the CS-3 and REGIUS 190 in 1 to 1 using cross cable or hub.

<Important> This connection is a temporary case purely for the purpose of setting the REGIUS 190. Do not connect several units of REGIUS 190 to hub at the same time. Doing so hinders recognition of each device due to the fact that all of REGIUS 190 are preset at the same IP address, and in consequence it becomes impossible to set up.



<Important> When an optional Ether board is installed on the CS-3, connect the REGIUS 190 to the standard port of CS-3.

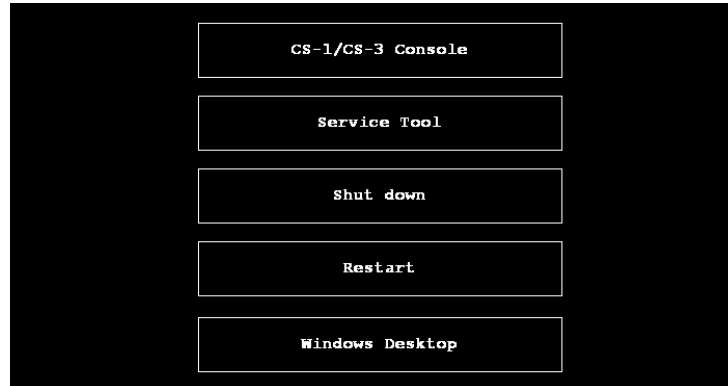
<Important> If the setting of CS-3 or internal JM is changed before setting the REGIUS 190, setting of the REGIUS 190 becomes impossible because the communication with REGIUS 190 is disabled. If such happens, reset the setting of CS-3 to that of the factory setting, and try again.

Start Up of CS-3 and REGIUS 190

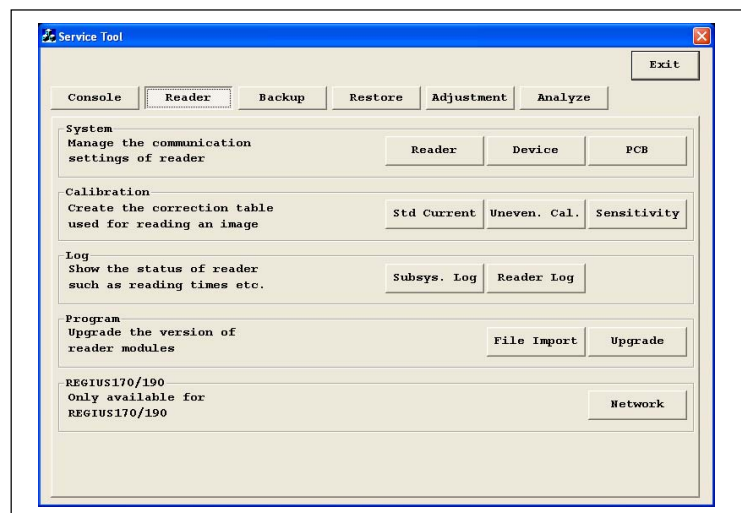
1. Turn ON the [Power] button of the CS-3 Control Unit and CS-3 Operation Unit to start each device.
Wait for the "Exam Search" screen to be displayed on the CS-3 Operation Unit.
2. Turn ON the circuit breaker of the REGIUS 190.
3. Press the Operation switch of the REGIUS 190 to turn ON the power.
Wait for the REGIUS 190 to complete initialization and to show "READY" on the LCD.

Setting the Network Condition Following procedures shall be initiated from the CS-3 Operation Unit.

1. Operate the mouse or touch panel to open the "REGIUS Service Screen".
Refer to "1.6.1 Service Tool Screens", 1-22 for the procedure to open the "REGIUS Service Screen".



2. Click "Service Tool".
A password input screen will be shown again.
3. Input a service tool password(5678), and click OK.
Service Tool screen(Console) will be shown.
4. Click "Reader".
Service Tool screen(Reader) will be shown.



5. Click [Network] listed on the bottom row of "REGIUS 170/190".
- Current status of networking information acquired from REGIUS 190 will be shown on the "Network Info." screen.

6. Input the network condition for REGIUS 190 in the "Reader" column by referring to the following table.

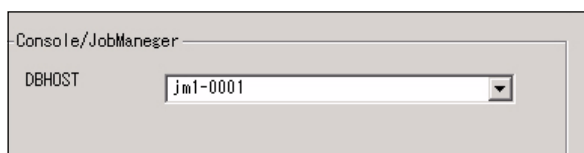
Item to be set	Description
Host Name	Input the host name of the target REGIUS 190. r170-**** : **** indicates the serial number. <Important>Always use lower cases to input.
Gateway	Input the IP address of the gateway when the CS-3 and REGIUS 190 are connected via gateway.
IP Address	Input the IP address of the REGIUS 190.
Netmask	Input the subnet mask of the network.

ex)

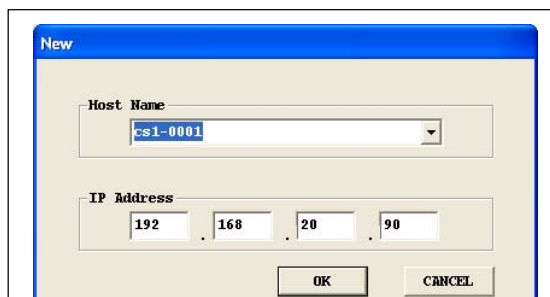
7. Input in "DBHOST" of "Console/JobManager" the host name that will be assigned to the REGIUS190.

Item to be set	Description
DBHOST	Input the host name of the JM. It is fixed as "jm1-0001" <Important>Always use lower cases to input.
Port No.	Change the port number with which the CS-3 communicates with the REGIUS 190. <Important> Do not change the setting unless otherwise instructed.

ex)



8. In the list of "Hosts", select the host name for CS-3, and click "Edit".
Edit dialogue will be shown.

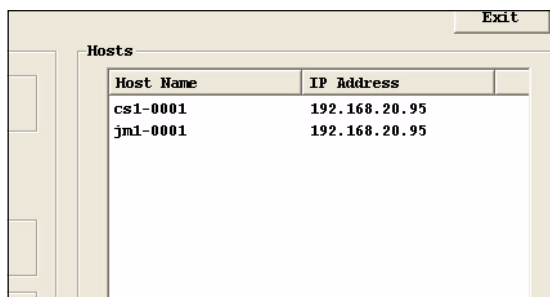


9. Input the host name and IP address of the CS-3 which will be connected to the REGIUS 170, and click [OK].

<Important>Always use upper cases to input the host name of CS-3.

Confirmation dialogue for rewriting will be shown.

10. Click [Yes].
The host name and IP address that were input in the "Hosts" list will be shown.
ex)



11. Click [New].

New dialogue will be shown.

12. In a same manner as the step 9 and 10, input the host name "jm1-0001" and the IP address "192.168.20.95", and click [OK].

<Important>Always use lower cases to input the host name (jm1-0001).

Dialogue to confirm addition will be shown.

13. Click [YES].

Added information will be shown in the "Hosts" list.

ex)

Host Name	IP Address
cs1-0001	192.168.20.95
jm1-0001	192.168.20.95

<Important>Because the console (CS-3) and the JM will be accessed for different purpose, assign the same IP address to both host names CS-1-0001 and jm1-0001 as shown above.

14. Click "Send".

The setting shown on the screen will be sent to the REGIUS 190, and the network setting will be altered.

- These setting conditions will be written in the CF(Compact Flash) of the REGIUS 190.

<Important>In the case of "1 to 1 connection", the CS-3 that will be registered in the "Hosts" list should be the one (CS-3) that is connected to the target REGIUS 190.

15. Click "Exit" to close the Network Set Up screen.

Returns to the Service Tool screen(Reader).

16. Press the operation switch to turn off the power of the REGIUS 190.

17. Turn off the circuit breaker of the REGIUS 190.

Implementing the above procedure completes the set up of REGIUS 170.
Then proceed to the set up of the CS-3.

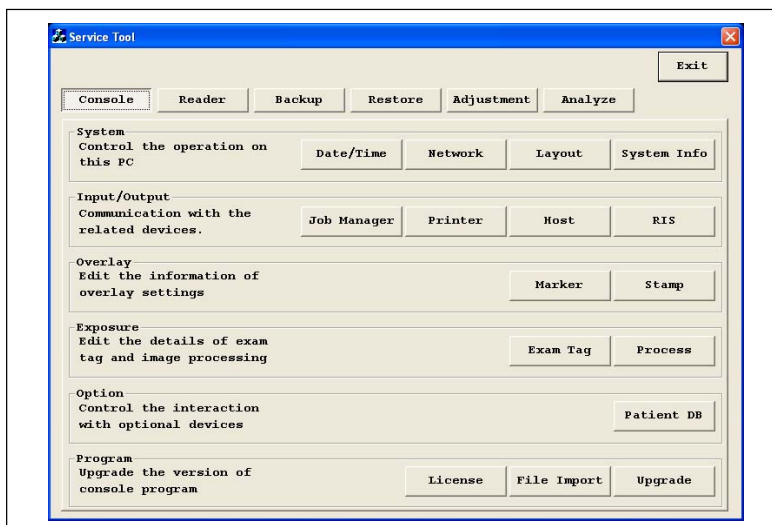
<Caution> The REGIUS-190 whose network condition has been changed is no more capable of communicating with the CS-3 until the network condition of the CS-3(and JM) is newly set up. Upon the start up of the REGIUS 190, a network error will be shown on the LCD after completing the initialization, and its own MAC address and IP address will blink alternately.

3.1.2 Network Setting of CS-3

Set up the network condition of the CS-3 and the REGIUS 190/170 that will be connected to this CS-3.

Setting the IP Address

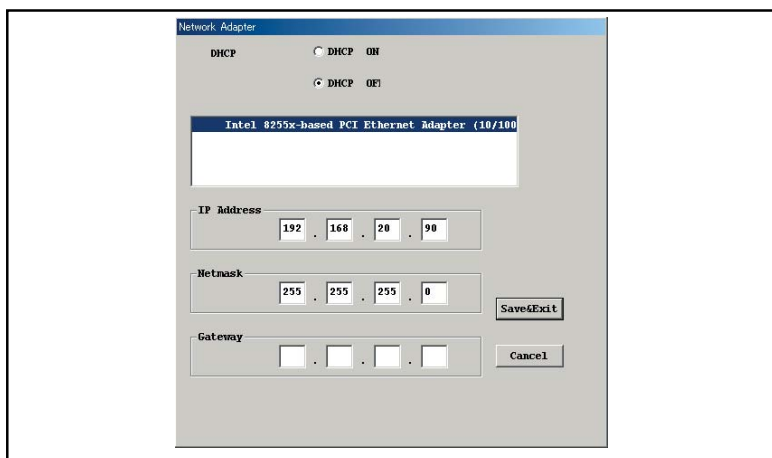
1. Click "Console" on the Service Tool screen.
Service Tool screen(Console) will be shown.



2. Click [Network] of [System].

A network address set screen will be shown.

- A device name of the network adapter, IP address, subnet mask, default gateway address currently assigned to the CS-3 will be shown on the network address screen.
- In the case that an optional Ethernet card is installed, there shows 2 device names of network adapter.
"Intel (R) PRO/1000 MT Network Connection" is the device name of the Ethernet adapter incorporated in the CS-3, while "Intel (R) PRO/1000 T Desktop Adapter" is the device name of the additionally installed Ethernet board.



3. Click and select "Intel (R) PRO/1000 MT Network Connection".
4. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.
5. When an optional Ethernet board is installed, click "Intel (R) PRO/1000 T Desktop Adapter", then click [DHCP OFF] button to select, input the IP address, subnet mask of the Ethernet board.
6. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool.

Setting the JM Information

1. Click [Job Manager] of [Input/Output].
JOBM INFO screen will be shown.

The screenshot shows the 'JOBM INFO (JobMInf.ini)' dialog box. It is divided into three main sections for configuration:

- Basic Setting:** The 'Register' dropdown is set to 'Manual'. The 'Host Name' text field contains 'CS1-0001'. To the right of this field is the text 'Registered in JM'.
- Communication Setting(Standard):** The 'built-in' checkbox is checked. The 'IP Address' field is set to '127.0.0.1'.
- Communication Setting(Backup):** The 'Registered Device' checkbox is unchecked. The 'Built-in' checkbox is unchecked. The 'IP Address' field is set to '192.168.20.101'.

At the top right of the dialog are 'OK' and 'Cancel' buttons.

2. Only when the registration method of the barcode is to be set to "Barcode's Register Method", select [Barcode Register] of [Register] to put out the check mark.
3. Check that [ON] of "Internal Job Manager" is checked(selected).

4. Input the host name(CS1-**** : **** indicates the serial number) of the CS-3 in [Host Name of This PC].

<Important>Always use upper cases to input the host name of CS-3.

ex) Setting of the CS-3 (Ser. No. 0025) in the formentioned system example.

Basic Setting	
Register	Manual
Host Name	CS1-0025 Registered in JM
Communication Setting(Standard)	
built-in	<input checked="" type="checkbox"/> ON
IP Address	127 0 0 1
Communication Setting(Backup)	
Registered Device	<input type="checkbox"/>
Built-in	<input type="checkbox"/> OFF
IP Address	192 168 20 181

5. Click [OK], then click [Yes] of the confirmation dialogue.

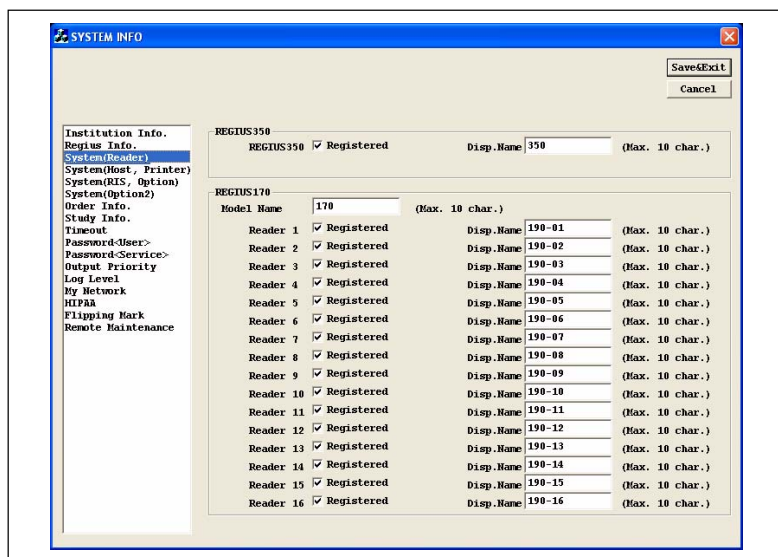
The screen will switch back to the Service Tool.

Setting the Device Name

1. Click [System Info] of [System].
SYSTEM INFO screen will be shown.

SYSTEM INFO	
<ul style="list-style-type: none"> Institution Info. Regius Info. System(Reader) System(Host, Printer) System(RIS, Option) System(Option2) Order Info. Study Info. Timeout Password-User> Password-Service> Output Priority Log Level My Network HIPAA Flipping Mark Remote Maintenance 	<div> <div>Institution Info.</div> <div> <div>Institution Name</div> <div>REGIUS CLINIC (Max. 60 Char.)</div> </div> <div> <div>Institution Address</div> <div>(Max. 60 Char.)</div> </div> <div> <div>Department Name</div> <div>Radiology (Max. 60 Char.)</div> </div> </div> <div> <div>Save&Exit</div> <div>Cancel</div> </div>

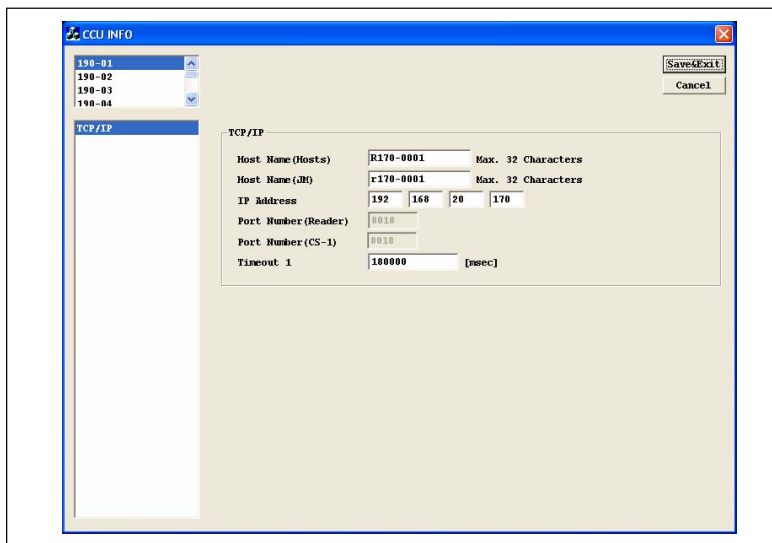
2. Select "System (Reader)" in the set up list shown on the left of the screen.



3. Check that only "Reader 1" is checked in [Registered] of [REGIUS 170].
4. Click Model name box, and input the group name of the REGIUS 190(s).
This name is a group name generally applied to the cassette readers, and will be displayed on place where the modality is selected on the screens of CS-1/CS-3 application.
5. Click "Model" of "Reader 1", and input the name of that specific REGIUS 190.
This name will be shown on the "System Status" screen of the CS-1/CS-3 application.
6. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool (Reader).
7. Click [Reader].
Service Tool screen(Reader) will be shown.

8. Click [Reader] of [Reader].

CCU INFO screen will be shown.



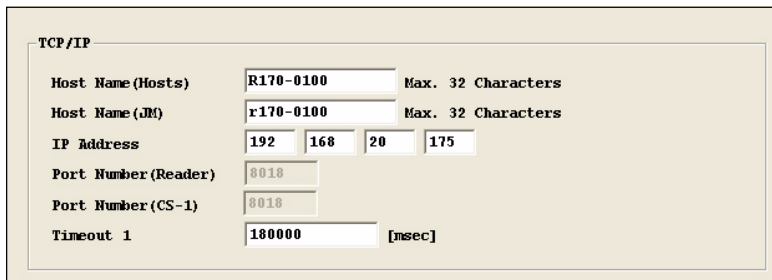
9. Input the host name assigned to the REGIUS 190 using upper case letters in [Host Name] of "TCP/IP".

10. Input the host name assigned to the REGIUS 190 using lower case letters in [Host Name (JM)] of "TCP/IP".

<Important> Always use lower cases to input the host name of the REGIUS 190.

11. Input the IP address assigned to the REGIUS 190 in [IP Address] of "TCP/IP".

ex) Set up of the REGIUS 190 (serial No. : 0100) of the system example in the preceding page.



12. Click [Save & Exit], then click [Yes] of the confirmation dialogue.

The screen will switch back to the Service Tool.

3.1.3 Set Up of JM Data Base

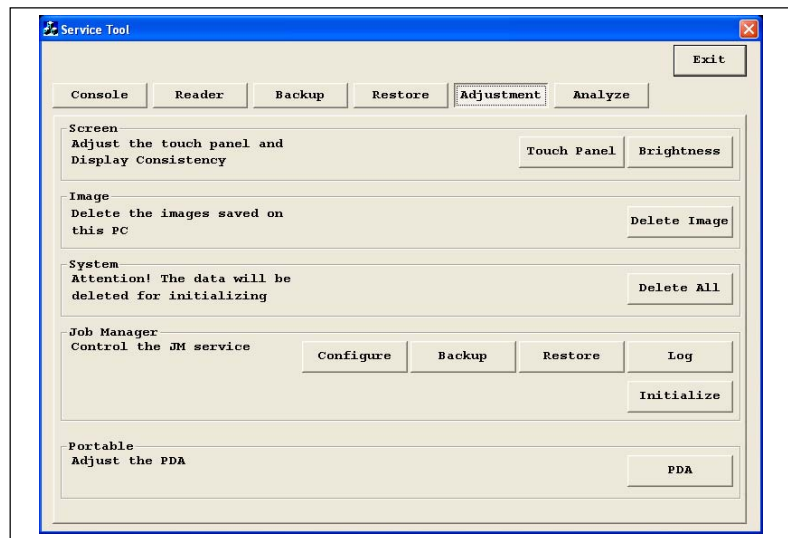
In the case of "1 to 1 connection", factory settings for the CS-3 and the REGIUS 190 will be registered in the data base of the JM.

Thus, it is necessary to update the information registered in the data base according to the procedures below when the host name of CS-3 or REGIUS 190 is changed. Use the incorporated "PostgreSQL" tool to implement this setting.

<Important>When using the "PostgreSQL" tool, always use upper cases to input the host name of CS-3 while lower cases to input the host name of REGIUS 190.

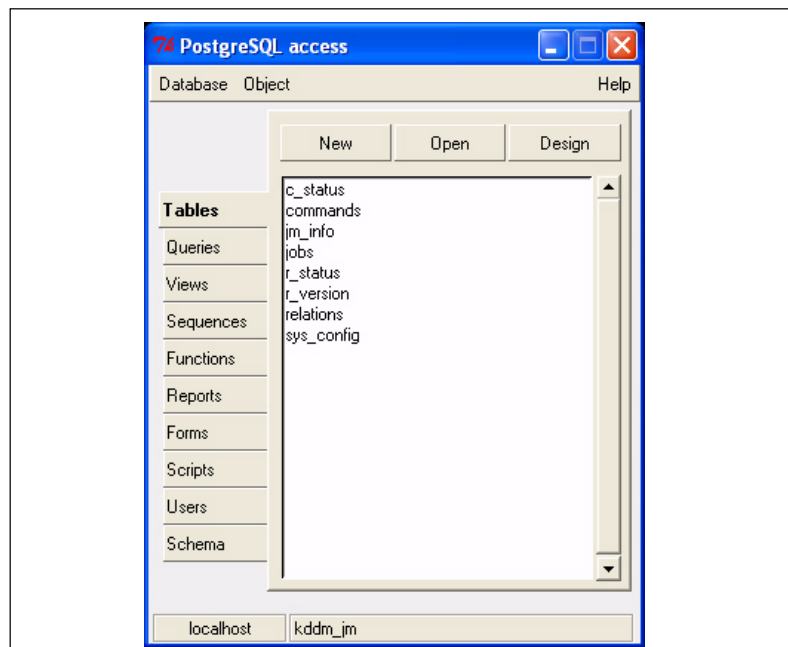
Starting "Postgre SQL access"

1. Click [Adjust] on the Service Tool screen.



2. Click [Configure] of "Job Manager".

PostgreSQL access tool will start.



Changing the Registered Information of CS-3 and REGIUS 190/170

1. When the host name of CS-3 is changed, double-click [c_status] of "PostgreSQL access" tool.
"c_status" screen will be shown.

c_name	img_ack	c_stat
CS1-0001	x	2
x		

2. Click [CS1-0001].
Switches to the text input mode.
3. Rewrite "CS1-0001" to the altered host name(upper case).
4. After completing the input, click [Reload] --> [Close].
"c_status" screen closes, and switches to "Postgre SQL access" tool.
5. When the host name of REGIUS 190 is changed, double-click [r_status] of "PostgreSQL access" tool.
"r_status" screen will be shown.

r_name	r_type	r_stat	exec_jid	err_code	door	casin	casout	lamp	maintain_c
r170-0001	x	2	0	x	x	x	x	x	x
x									

6. Click [r170-0001].
Switches to the text input mode.
7. Rewrite "r170-0001" to the altered host name(lower case) of the REGIUS 190.
8. Click "r_type", then input "V".
9. After completing the input, click [Reload] --> [Close].
"r_status" screen closes, and switches to "Postgre SQL access" tool.

10. When the host name of REGIUS 190 is changed, double-click [r_version] of "PostgreSQL access" tool.
"r_version" screen will be shown.

r_name	version	ncb_version	scb_version	mcb_version	cf
r170-0001					
x	x	x	x	x	x

11. Click [r170-0001].
Switches to the text input mode.
12. Rewrite "r170-0001" to the altered host name(lower case) of the REGIUS 190.
13. After completing the input, click [Reload] --> [Close].
"r_version" screen closes, and switches to "Postgre SQL access" tool.
14. When the host name of the CS-3 or the REGIUS 190 is changed, double-click [relations].
"relations" screen will be shown.

c_name	r_name	alert
CS1-0001	r170-0001	1
x	x	x

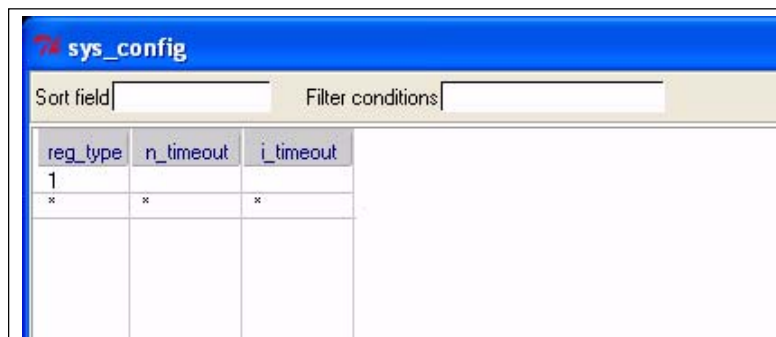
15. When the host name of the CS-3 is changed, click "CS1-0001", and rewrite it to the altered host name(upper case).
16. When the host name of the REGIUS 190 is changed, click "r170-0001", and rewrite it to the altered host name(lower case).
17. After completing the input, click [Reload] --> [Close].
"relation" screen closes, and switches to "Postgre SQL access" tool.

Set Up of the barcode Registration

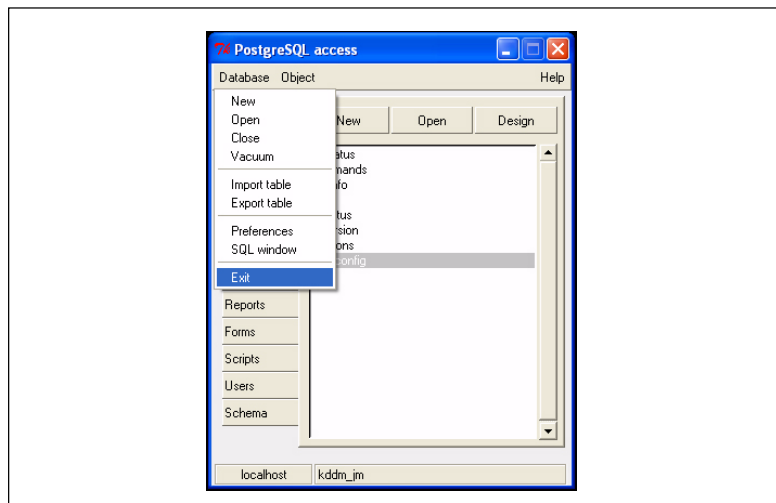
In this paragraph, how to set up the barcode registration of the system is described. At the factory, it is set to "Manual Registration"-(1), therefore it is essential to change the setting when using "barcode registration".

<Important>The setting made here must identical to that set in "Barcode Registered Method" on "JOBM INFO" screen.

1. Double-click [sys_config] of "PostgreSQL access" tool.
"sys_config" screen will be shown.



2. To change to "barcode Registration", click "1" of "reg_type": to change to "0".
3. Click [Reload] --> [Close].
"sys_config" screen closes, and switches to "PostgreSQL access" tool.
4. Click "Data base" menu on "PostgreSQL access" screen, and select [Exit].

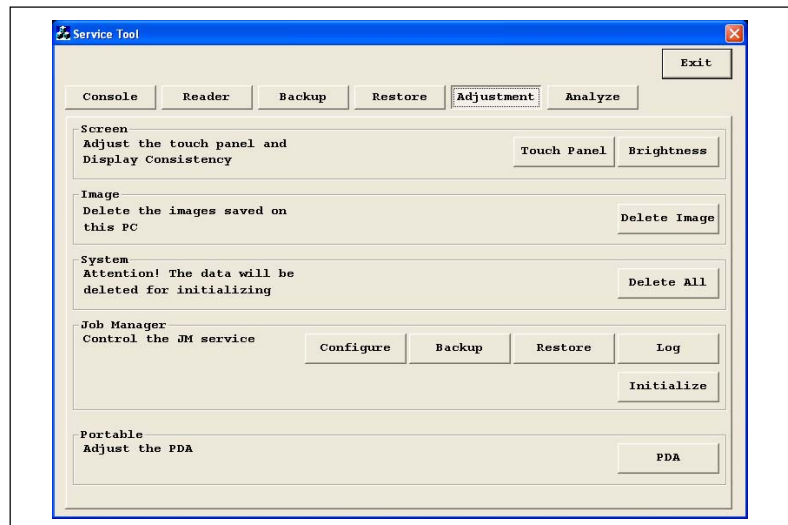


"PostgreSQL access" tool will close, and switches to "Service Tool" screen.

3.1.4 Back Up of JM Information

After completing the set up to JM data base, back up the settings in a floppy disk.

1. Insert a floppy disk in the floppy disk drive of the CS-3.
2. Click [Backup] of "Job Manager".



The back up sequence starts.

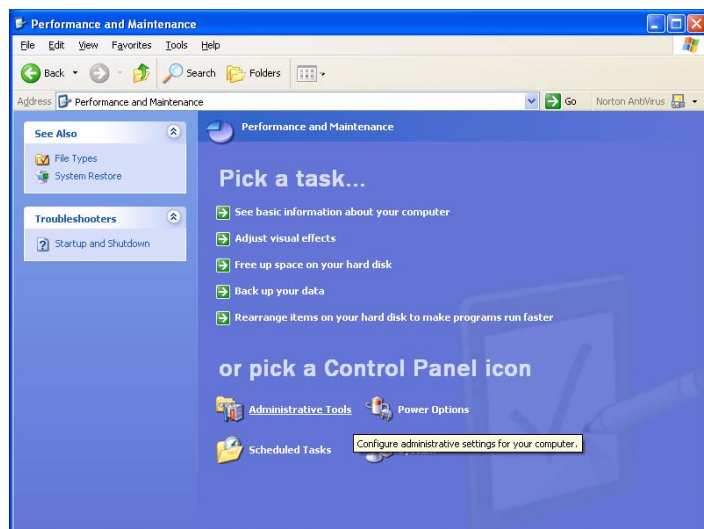
- A folder under the name of "jbckup_jm" will be created in the floppy disk, and the backup data will be saved in that folder.

3. Unload the floppy disk for back up from the floppy disk drive.

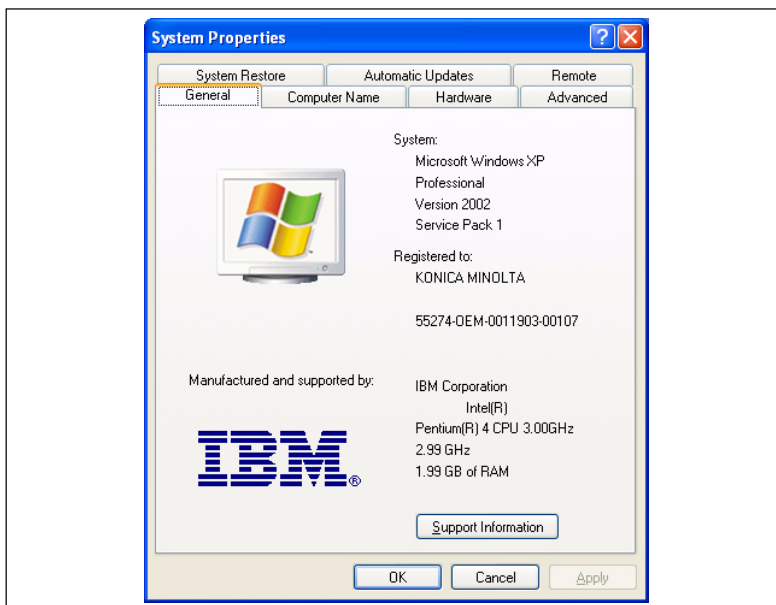
3.1.5 Setting the PC Name

To enable the Windows to recognize the CS-3, set the PC name of the CS-3.

1. Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the "REGIUS Service Screen".
3. Click [Windows Desktop].
REGIUS Service Screen will close, and Windows desk top will be shown.
4. Select [Control Panel] from [Start] menu.
"Control Panel" will be shown.
5. Click [Performance & Maintenance].
"Performance & Maintenance" screen will be shown.

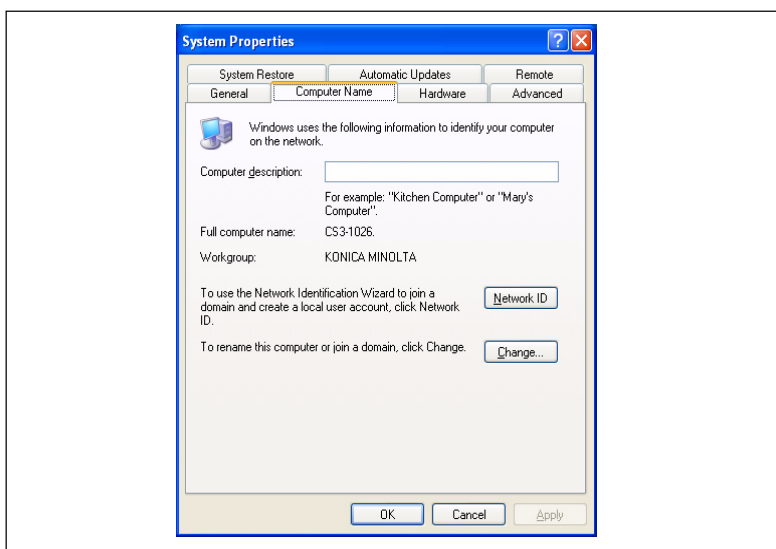


6. Click the "System" of the "Performance & Maintenance".
"Properties" dialogue of system will be shown.



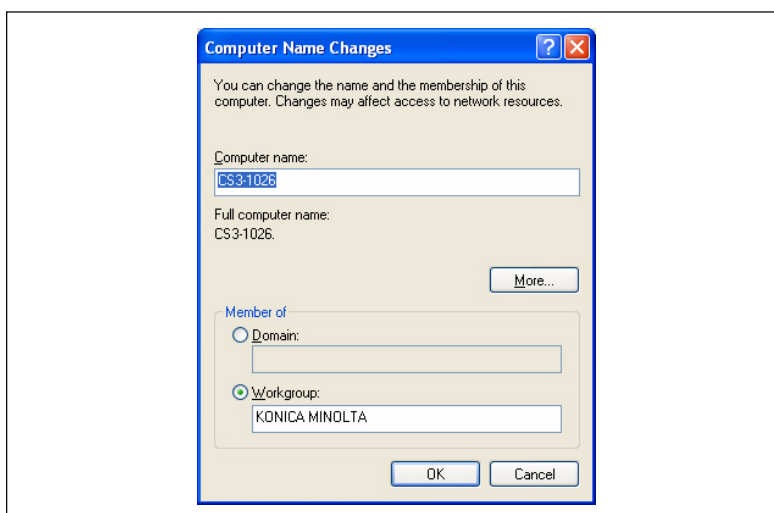
7. Click [Computer Name] tab.

"Computer Name" dialogue will be shown.



8. Click [Change] tab.

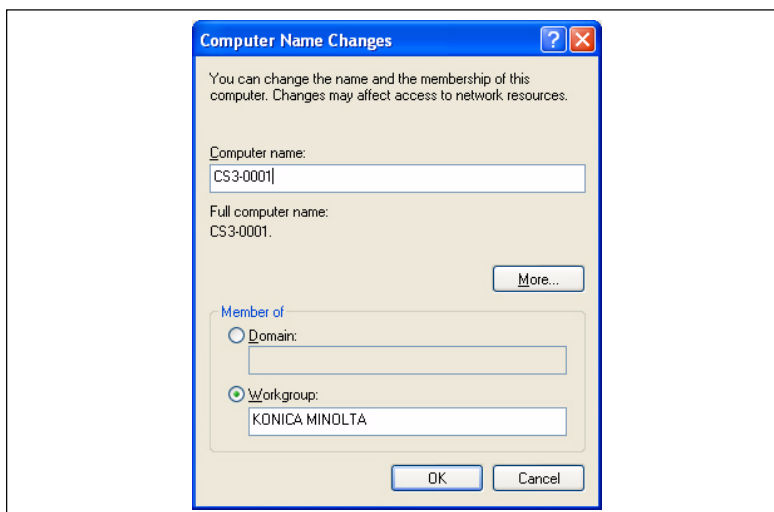
"Computer Name Changes" dialogue will be shown.



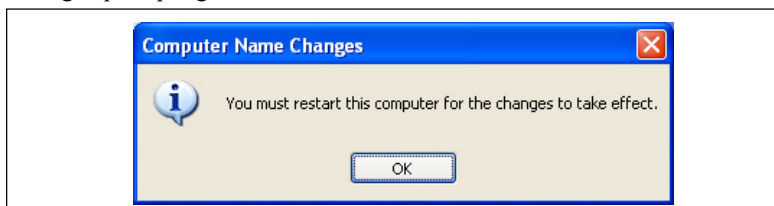
9. Input in the [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then input "KONICA MINOLTA" in [Work group] of [Member of].

<Important>Always use upper cases to input.

ex) Setting of the CS-3(serial No. : 0001) in the system example of the preceding page.



10. Click [OK].
Dialogue prompting a restart will be shown.



11. Click [OK].
Switches to "System Properties" screen.

-
12. Click [OK].
Dialogue inquiring an immediate restart will be shown.
 13. Click [Yes].
The Computer will restart, and the revised setting will become effective.

Terminating the System

1. Wait for the initial screen of the CS-1/CS-3 application to be shown.
2. Click [KONICA MINOLTA].
System menu will be shown.
3. Click [Shut down].
Termination sequence will be initiated. Upon closure of the CS-1/CS-3 application, the power of CS-3 will be turned off.
4. Remove the Ethernet cable that is temporary connected between the CS-3 control unit and the REGIUS 190.

Implementing the above procedures completes the set up one each of REGIUS 190 and CS-3.

To set up several CS-3s and REGIUS 190/170s, repeat the procedures starting from " [Network Setting of REGIUS 190](#)", 3-4.

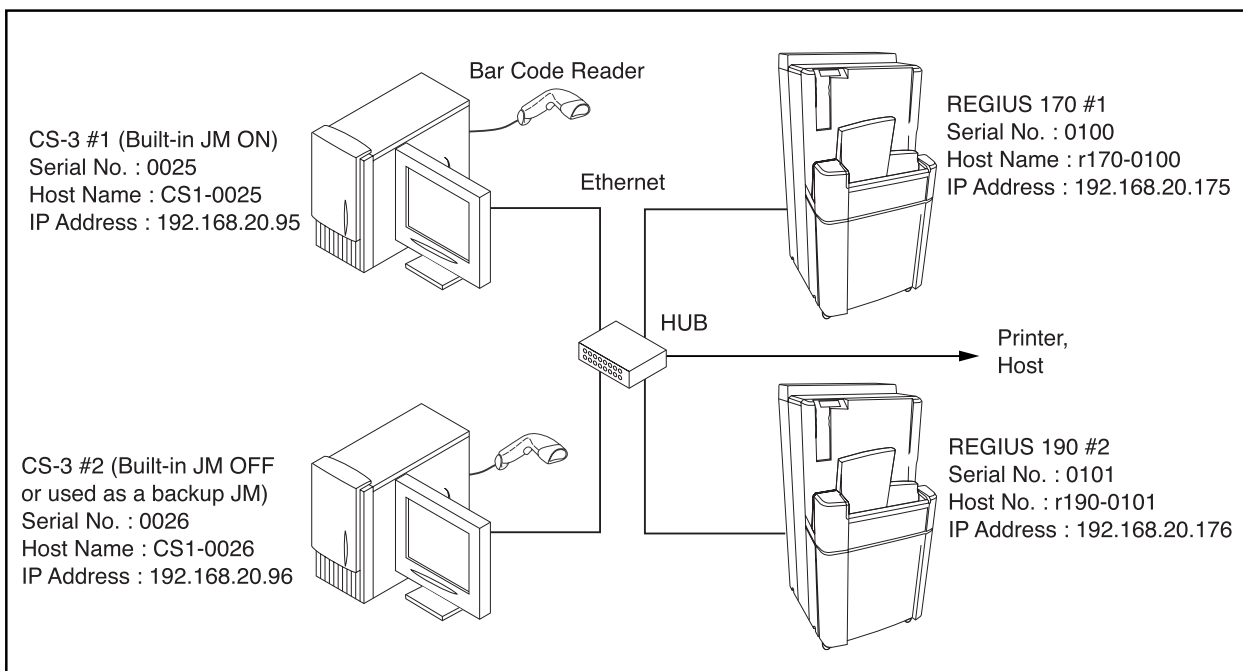
3.2 Setting "n to m Connection"(Internal JM)

In this paragraph, how to set up the "n to m connection" where 4 or less units in total of CS-3 and REGIUS 190/170 are interfaced is described. For the network of 4 or less units in total can be operated with the JM that is incorporated in one CS-3.

Also described in this paragraph is how to prepare the CS-3 without an activated internal JM so that it can be used as a back up JM in emergency case.

You can select only one backup JM in the system.

The example described in this paragraph is based on the system configured with one REGIUS 170 is mix-used as shown in the following.



<Caution> It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.

<Caution> Dedicated reader(REGIUS 350) can not be interfaced to the CS-3 that has internal JM activated. Even with 4 or less number of units that are connected, install an external JM when connecting dedicated readers(REGIUS 350) to all of CS-3s. However, the case where one CS-3 and 3 or less REGIUS 190/170 are networked, this cannot be applied.

<Caution> In the "n to m connection", the barcode registration method must be set to "barcode Registration".

<Important>To operate the whole system, always turn on the power of the CS-3 which incorporates the activated JM, and turn off this CS-3 last when terminating the operation. Instruct the users to observe this rule in daily operation.

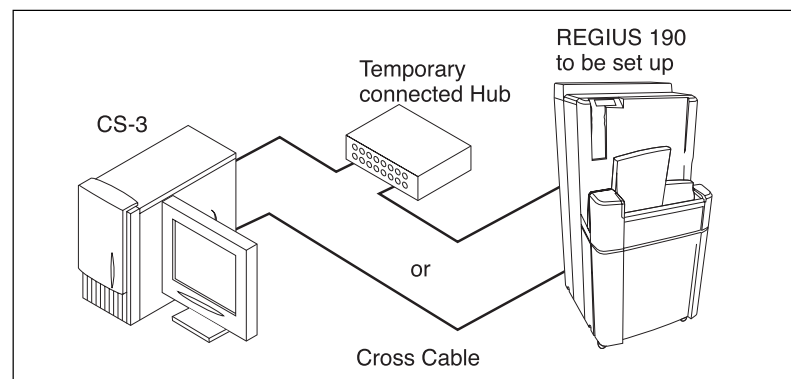
3.2.1 Network Setting of REGIUS 190/170

Temporary Connection of CS-3 and REGIUS 190/170

To enable the CS-3 to implement the set up of REGIUS 190/170 via Ethernet, both have been set up at the factory so that they can communicate using the factory setting. The set up of REGIUS 190/170 in the below shall be made by temporary connecting the CS-3 in "1 to 1" configuration.

1. Plug the power cables of CS-3 Control Unit, CS-3 Operation Unit, and REGIUS 190/170 into wall outlet.
2. Connect the CS-3 and REGIUS 190/170 in 1 to 1 using cross cable or hub.

<Important> This connection is a temporary case purely for the purpose of setting the REGIUS 190/170. Do not connect several units of REGIUS 190/170 to hub at the same time. Doing so hinders recognition of each device due to the fact that all of REGIUS 190/170 are preset at the same IP address, and in consequence it becomes impossible to set up.



<Important> When an optional Ether board is installed on the CS-3, connect the REGIUS 190/170 to the standard port of CS-3.

<Important> If the setting of CS-3 or internal JM is changed before setting the REGIUS 190/170, setting of the REGIUS 190/170 becomes impossible because the communication with REGIUS 190/170 is disabled. If such happens, reset the setting of CS-3 to that of the factory setting, and try again.

Start Up of CS-3 and REGIUS 190/ 170

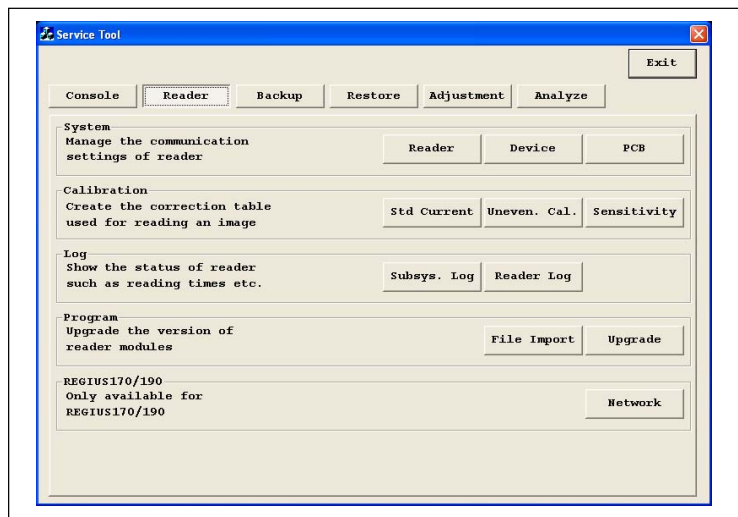
1. Press the power SW of CS3 Control Unit and Operation Unit to start up.
Wait until the initial screen shows after the CS-3 starts up.
2. Turn ON the circuit breaker of REGIUS 190/170.
3. Press the Operation switch of the REGIUS 190/170 to turn ON the power. Wait for the REGIUS 190/170 to complete initialization and to show "READY" on the LCD.

Setting the Network Condition Following procedures shall be initiated from the CS-3 Operation Unit.

1. Operate the mouse or touch panel to open the REGIUS Service Screen.
Refer to "1.6.1 Service Tool Screens" for the procedure to open the REGIUS Service Screen.



2. Click [Service Tool].
A password input screen will be shown again.
3. Input a service tool password(5678), and click OK.
Service Tool screen(Console) will be shown.
4. Click [Reader].
Service Tool screen(Reader) will be shown.



5. Click [Network] listed on the bottom row of "REGIUS 170/190".
Current status of networking information acquired from REGIUS 190/170 will be shown on the network setting screen.

6. When the REGIUS 170 is to be set, untick the check mark for "Set R190".
7. Input the network condition for REGIUS 190/170 in the "Reader" column by referring to the following table.

for REGIUS 190

Item to be set	Description
Host Name	Input the host name of the target REGIUS 190. r190-**** : **** indicates the serial number. <Important>Always use lower cases to input.
Gateway	Input the IP address of the gateway when the CS-3 and REGIUS 190 are connected via gateway.
IP Address	Input the IP address of the REGIUS 190.
Netmask	Input the subnet mask of the REGIUS 190.

for REGIUS 170

Item to be set	Description
Host Name	Input the host name of the target REGIUS 170. r170-**** : **** indicates the serial number. <Important>Always use lower cases to input.
IP Address	Input the IP address of the REGIUS 170.
Netmask	Input the subnet mask of the REGIUS 170.

- When the check mark for "Set R190" is unticked, Gateway setting becomes invalid.

ex) Setting of the REGIUS 170#1 (serial No. 0100) in the system example in the preceding page.

8. Input in "DBHOST" of "Console/JobManager" the host name of the JM with which the REGIUS 190/170 communicate.

Item to be set	Description
DBHOST	Input the host name of the JM. It is fixed as "jm1-0001". <Important>Always use lower cases to input.
Port No.	Change the port No. with which the CS-3 communicates with the REGIUS 190/170. <Important> Do not change unless otherwise instructed.

- When the check mark for "Set R190" is unticked, Port No. setting becomes invalid.

ex)

9. In the list of "Hosts", select the host name for CS-3, and click [Edit]. Edit dialogue will be shown.

10. Input the host name and IP address of the first CS-3 (CS-3 #1) which will be connected to the REGIUS 190/170.

<Important>Always use upper cases to input the host name of CS-3.

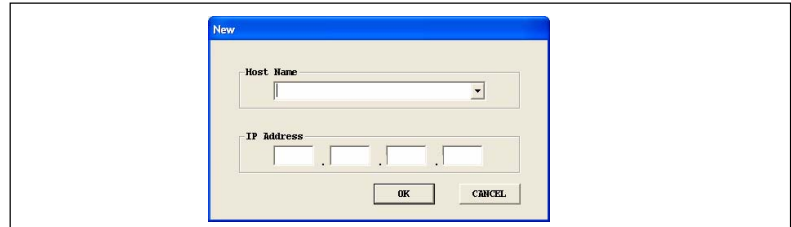
Confirmation dialogue for rewriting will be shown.

11. Click [Yes].

The host name and IP address that were input in the "Hosts" list will be shown.

12. Click [New].

New dialogue will be shown.

**13.** Input the host name and IP address of the second CS-3 (CS-3 #2) which will be connected to the REGIUS 190/170.

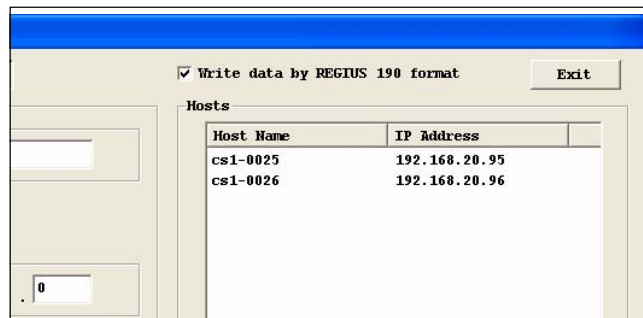
<Important>Always use upper cases to input the host name of CS-3.

Confirmation dialogue for addition will be shown.

14. Click [Yes].

The host name and IP address that were input in the "Hosts" list will be shown.

ex)Setting of the CS-3 #1(serial No. : 0025), CS-3 #2(serial No. : 0026) in the system example of the preceding page.

**15.** In a same manner as the step 11 through 13, input the host name "jm1-0001" and the IP address "192.168.20.95", and click [OK]. Further to set the back up JM, input the host name "jm1-0002" and the IP address "192.168.20.96".

<Important>Always use lower cases to input (jm1-0001, jm1-0002).

Dialogue to confirm addition will be shown.

16. Click [YES].

Added information will be shown in the "Hosts" list.

ex)

Host Name	IP Address
cs1-0025	192.168.20.95
cs1-0026	192.168.20.96
jm1-0001	192.168.20.95
jm1-0002	192.168.20.96

<Important>Because the console (CS-3) and the JM will be accessed for different purpose, assign the same IP address to both CS-3-0001 and jm1-0001 as shown above. Same should be applied to CS1-0026 and jm1-0002.

17. After checking that the host name shown in the "Hosts" list and the IP address is correct and not duplicating the other, then click "Send". The setting shown on the screen will be sent to the REGIUS 190/170, and the network setting will be altered.

- These setting conditions will be written in the CF(Compact Flash) of the REGIUS 190/170.

ex)Setting of the REGIUS 190 #2(serial No. : 0101) in the system example of the preceeding page.

Host Name	IP Address
cs1-0025	192.168.20.95
cs1-0026	192.168.20.96

18. Click [Exit] to close the "Network Info." screen.
Returns to the Service Tool screen(Reader).

19. Press the operation switch to turn off the power of the REGIUS 190/170.

20. Turn off the circuit breaker of the REGIUS 190/170.

<Important>In the case that the CS-3s and REGIUS 190/170s are connected in "n" to "m" configuration, the items in "Console/JobManager" and "Hosts" should be set same for all REGIUS 190/170s to be connected. "Host Name" and "IP Address" of "Reader" should be unique for each REGIUS 190/170.

<Caution> The REGIUS 190/170 whose network condition has been changed is no more capable of communicating with the CS-3 until the network condition of the CS-3(and JM) is newly set up. Upon the start up of the REGIUS 190/170, a network error will be shown on the LCD after completing the initialization, and its own MAC address and IP address will blink alternately.



21. Click [Exit] on the "Service Tool" screen.

Confirmation dialogue will be shown.

22. Click [Yes].

Switches to the "REGIUS Service Screen".

23. Click [Shut down].

"REGIUS Service" screen will close, and termination sequence will be initiated. Upon closure of the CS-1/CS-3 application, the power of CS-3 will be turned off.

24. Remove the Ethernet cable from the REGIUS 190/170.

Implementing the above procedures completes the set up one REGIUS 190/170.

To set up all REGIUS 190/170s that should be connected, repeat the procedures starting from " " Temporary Connection of CS-3 and REGIUS 190/170", 3-4.

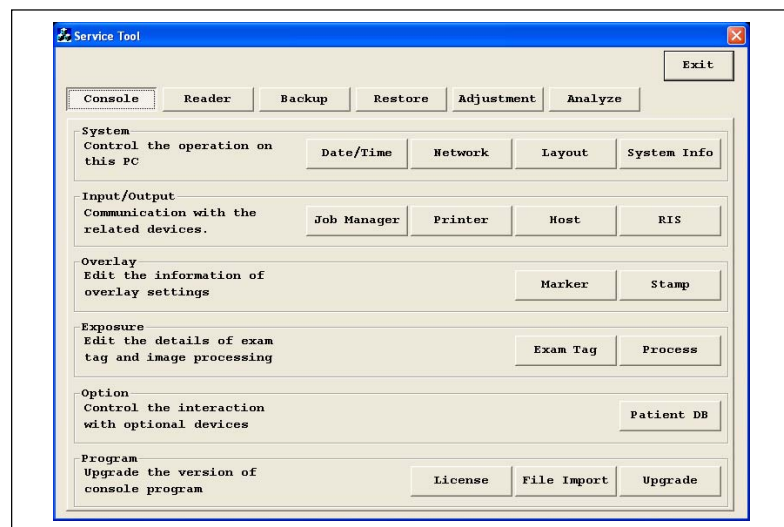
3.2.2 Set Up of CS-3 with Internal JM

After completing the set up of all REGIUS 190/170s, set up the CS-3 that has an activated JM.

- In this paragraph, how to set up the CS-3 that incorporates a JM. Carry out the procedure "3.2.3 Set Up of CS-3 with Disabled Internal JM", 3-49 for the CS-3 that does not use the internal JM.

Setting the IP Address

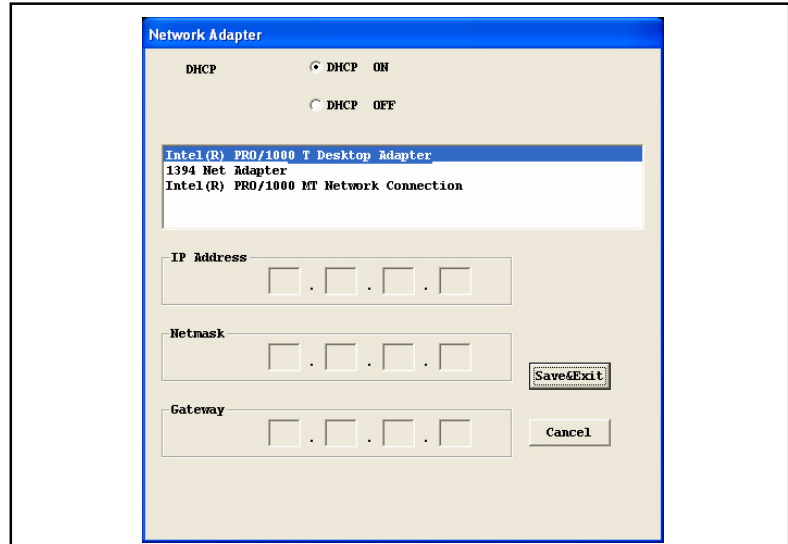
1. Press the power switch of the CS-3 Control Unit and Operation Unit to start up.
Wait for the initial screen to be shown.
2. Operate the mouse to show the "REGIUS Service Screen".
Refer to the "1.6.1 Service Tool Screens", 1-22 for the procedures to open the "REGIUS Service Screen".
3. Click [Service Tool].
"Password Input" screen will be shown.
4. Input the password(5678) for the service tool, and click [OK].
"Service Tool" screen(Console) will be shown.



5. Click [Network] of "System".

"Network Adapter" screen will be shown.

- A device name of the network adapter, IP address, net mask, gateway address currently assigned to the CS-3 will be shown on the network address screen.
- In the case that an optional Ethernet card is installed, there shows 2 device names of network adapter. "Intel (R) PRO/1000 T NT Network Connection" is the device name of the Ethernet adapter installed in the CS-3, the one in lower level "Intel (R) PRO/1000 T Desktop Adapter" is the device name of the additionally installed Ethernet board.



6. Click the "Intel (R) PRO/1000 T NT Network Connection" to select.

7. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.

8. When an optional Ethernet board is installed, click the "Intel (R) PRO/1000 T Desktop Adapter" in the device name list, then click [DHCP OFF] button to select, input the IP address, subnet mask of the Ethernet board.

9. Click [Save & Exit], then click [Yes] of the confirmation dialogue.

10. The screen will switch back to the Service Tool(console).

Setting the JM Information

1. Click [Job Manager] of [Input/Output].
JOBM INFO screen will be shown.

2. Select [Barcode Registration] of [Register] .
3. Check that [ON] of "Job Manager (Build-in)" is checked(selected).
4. Input the host name (CS1-**** : **** indicates the serial number) of the CS-3 in [Host Name (Local)].

<Important>Always use upper case characters to input the host name of the CS-3.

ex) Set up of the CS-3 with activated internal JM(serial No. 0025) in the system example of the preceeding page.

When the back up JM is not set up here, "JOBM INFO" screens are completed herewith. Proceeds to step.6.

5. When CS-3 #2 (serial Nr. 0026) is to be used as a back up JM, put a check mark on "Registered Device" of "Communication Setting (Secondary)" window and input the IP Address.

Communication Setting(Backup)

Registered Device ☒

Built-in ☐ ON

IP Address 192 168 0 11

6. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool.

Setting the Device Name Sets the number of REGIUS 190/170s to be connected to the CS-3 and the device name of the REGIUS 190/170s.

1. Click [System Info] of [System].
"SYSTEM INFO" screen will be shown.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
By Network
HCPA
Flipping Mark
Remote Maintenance

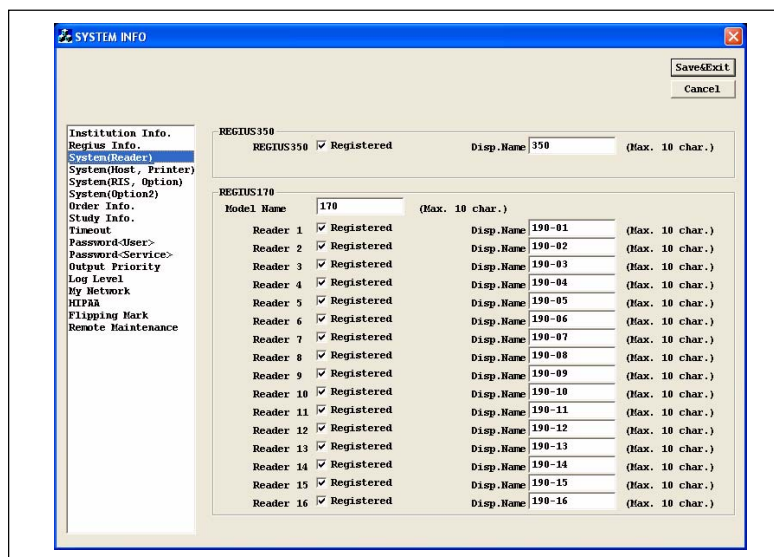
Institution Info.

Institution Name REGIUS CLINIC (Max. 60 Char.)

Institution Address (Max. 60 Char.)

Department Name Radiology (Max. 60 Char.)

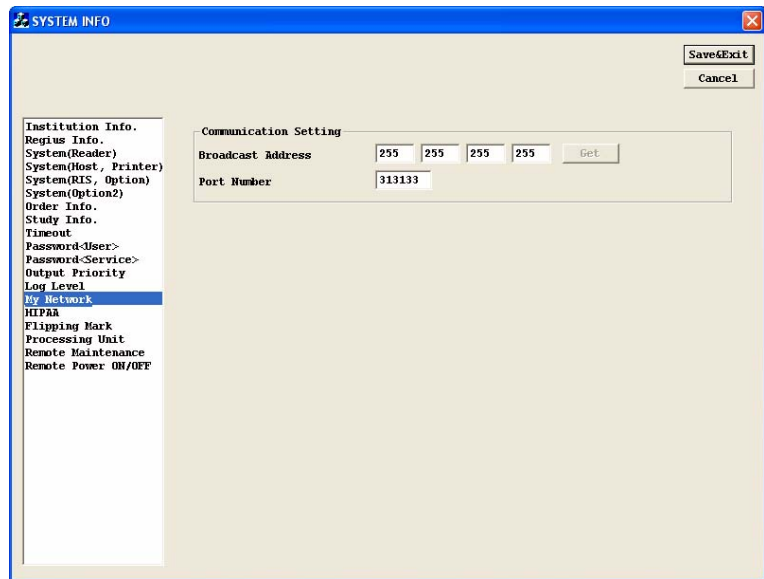
2. Select "System (Reader)" in the set up list shown on the left of the screen.



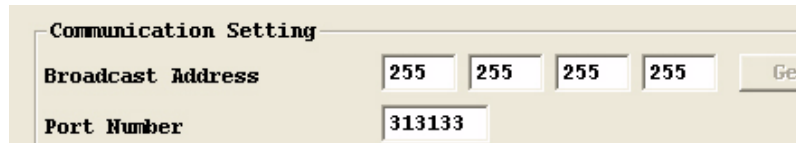
3. Put check marks on [Registered] of [REGIUS 170] as many as the number of REGIUS 190/170s to be connected.
4. Click Model name box, and input the group name of the REGIUS 190/170(s).
This name is a group name generally applied to the REGIUS 190/170(s), and will be displayed on place where the modality is selected on the screens of CS-1/CS-3 application.
5. Click "Model Name" of each "Reader xx" that has a check mark on "Registered", and input the name of each REGIUS 190/170.
This name will be shown on the "System Status" screen of the CS-1/CS-3 application. Put the name which can be easily identified by the user. (for example, a name of the X-ray room where the REGIUS 190/170 is installed; X-ray room #1, X-ray room #2)

Proceed to step.8 when no back up JM is set up.

6. When the back up JM is set up in "Setting the JM Information", 3-11, select "CS-3 Network" in the left column.



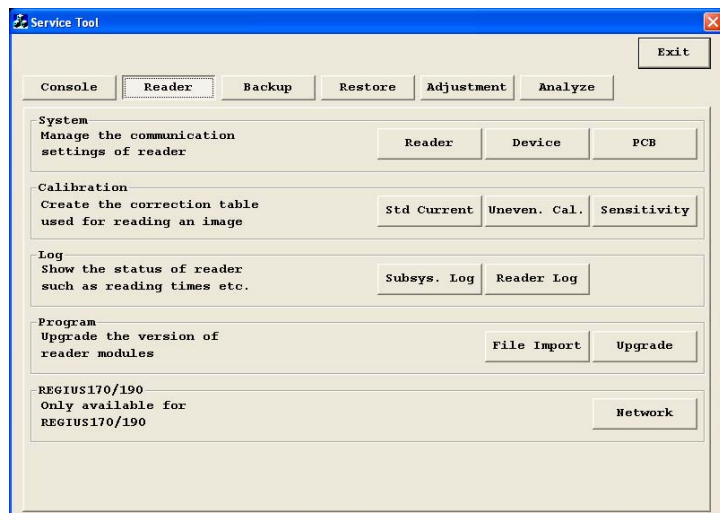
7. Input "255.255.255.255" (fixed) in "Broadcast Address" of "Communication Setting".



- Leave the port number as default (313133), and do not change it.

8. Click [Save & Exit], then click [Yes] of the confirmation dialogue. The screen will switch back to the Service Tool(console).

9. Click [Reader].
Service Tool screen(Reader) will be shown.

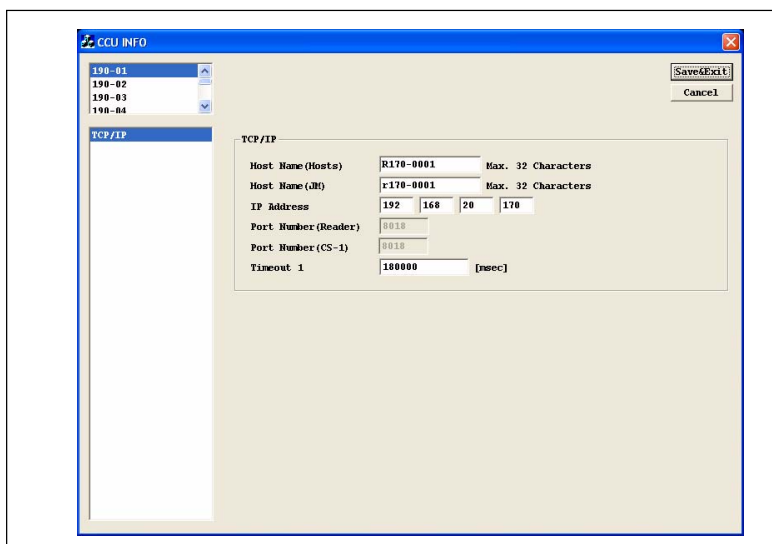


10.

Click [Reader] of [Reader].

CCU INFO screen will be shown.

In the upper left reader list column, reader name that is input in the step.5 is shown.



11.

Select the device name of the first REGIUS 190/170 from the reader list shown on the upper left of the screen.

12.

Input the host name(upper case) assigned to the first REGIUS 170 in [Host Name] of "TCP/IP".

- It will be displayed in upper case disregard of input type.

13.

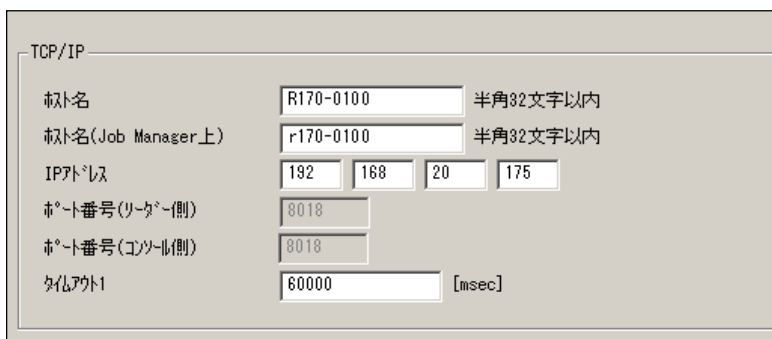
Input the host name (lower case) assigned to the first REGIUS 170 in [Host Name(JM)] of "TCP/IP".

<Important>Always use lower case characters for input.

14.

Input the IP address assigned to the first REGIUS 170 in [IP Address] of "TCP/IP".

ex) Set up of the REGIUS 170 #1(serial No. : 0100) of the system example in the preceeding page.



15.

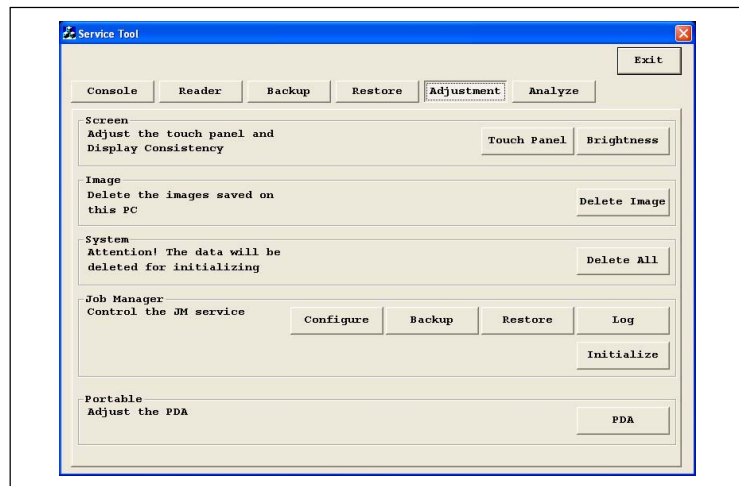
Select the device name of the second REGIUS 190 from the reader list shown on the upper left of the screen.

16. Repeat the step 10 through 11, input the "Host Name", "Host Name (on the Job Manager)", and "IP Address" for the second REGIUS 190.
17. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool.

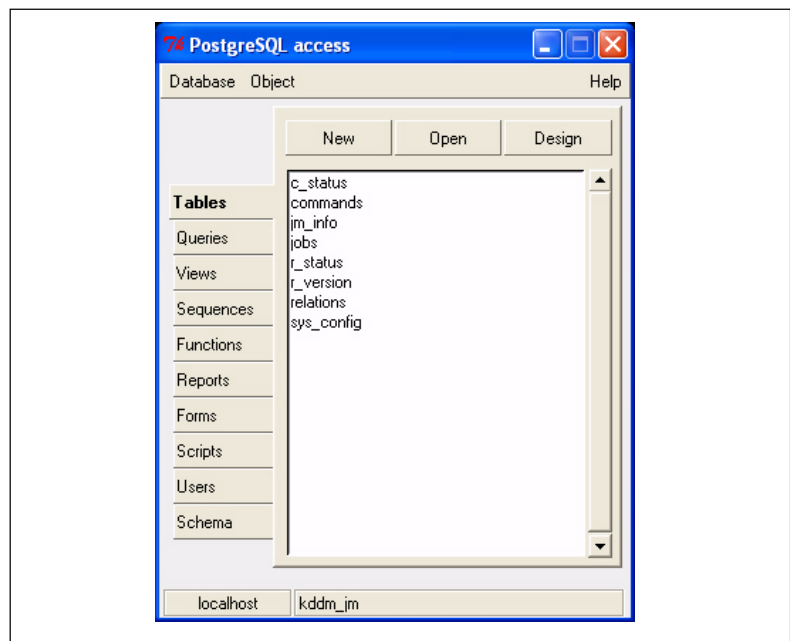
Set Up of JM Data Base Register in the JM data base the information of the CS-3s and REGIUS 170s that the JM controls.
Use PostgreSQL tool to implement the set up.

<Important>When using the PostgreSQL tool, always use upper case characters to input the host name of CS-3 whereas use lower case characters to input the host name of REGIUS 190/170.

1. Click [Adjustment] on the Service Tool screen.



2. Click [Configure] of "Job Manager".
PostgreSQL access tool will start.



Registering the Information of CS-3 and REGIUS 190/170

1. When the host name of CS-3 is changed, double-click [c_status] of "PostgreSQL access" tool.
"c_status" screen will be shown.

c_name	img_ack	c_stat
CS1-0001	*	2
*	*	*

2. Click [CS1-0001].
Switches to the text input mode.
3. Rewrite "CS1-0001" to the host name(upper case) of the first CS-3.
4. Press TAB key on the keyboard.
Cursor moves to the row of "c_stat".
5. Input "2", and press TAB key.
The next column becomes text input mode.
6. Input the host name of the second CS-3, and press TAB key.
7. Input "2".

ex) Setting of CS-3 #1(serial No. : 0025), CS-3 #2(serial No. : 0026) in the system example of the preceeding page.

c_name	img_ack	c_stat
CS1-0025	*	2
CS1-0026	*	2
*	*	*

8. After completing the input, click [Reload].
9. Check that all inputs are correctly made, then click [Exit].
"c_status" screen will close, and switch to "PostgreSQL access" tool.

10. Double-click [r_status] of "PostgreSQL access" tool.

"r_status" screen will be shown.

r_name	r_type	r_stat	exec_jid	err_code	door	casin	casout	lamp
r170-0001		2	0					
x	x	x	x	x	x	x	x	x

11. Click [r170-0001].

Switches to the text input mode.

12. Rewrite "r170-0001" to the host name(lower case) of the first REGIUS 170.

13. Press TAB key of the keyboard.

Cursor moves to the "r_stat" column.

14. Input "2", and press TAB key.

The next column becomes text input mode.

15. Input the host name of the second REGIUS 190, and press TAB key.

Cursor moves to the "r_type" column.

16. Input "V", and press TAB key.

17. Input "2".

ex) Setting of REGIUS 170 #1(serial No. : 0100), REGIUS 190 #2(serial No. : 0101) in the system example of the preceeding page.

r_name	r_type	r_stat	exec_jid	err_code	door	casin	casout	lamp
r170-0100		2	0					
r170-0101		2	0					
x	x	x	x	x	x	x	x	x

18. After completing the input, click [Reload]--> [Close].

"r_status" screen will close, and switch to "PostgreSQL access" tool.

19. Double-click [r_version] of "PostgreSQL access" tool.

"r_version" screen will be shown.

r_version					
Sort field		Filter conditions			
r_name	version	ncb_version	scb_version	mcb_version	cf
r170-0001	x	x	x	x	x

20. Click "r170-0001".

Switches to the text input mode.

21. Rewrite "170-0001" to the host name(lower case) of the first REGIUS 170.

22. Press TAB key of the keyboard 3 times.

The next line will change to the text input mode.

23. Input the host name of the second REGIUS 190.

24. After completing the input, click [Reload] --> [Close].

"r_version" screen will close, and switch to "PostgreSQL access" tool.

Setting the Relations

Set the relations between the CS-3(s) and REGIUS 190/170(s). In the "n to m connection", setting the relations between the CS-3 and REGIUS 190/170 will enable a linked-operation as to the power control, error information between the CS-3 and corresponding REGIUS 190/170. In this paragraph, the description is made presuming that the relation is assigned to all CS-3s and REGIUS 190/170s.

1. Double-click [relations] of "PostgreSQL access" tool.

"relations" screen will be shown.

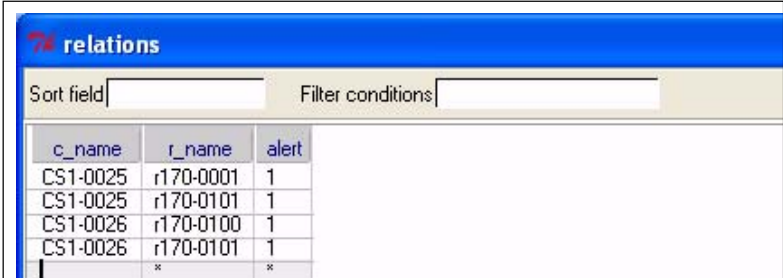
relations		
Sort field		Filter conditions
c_name	r_name	alert
CS1-0001	r170-0001	1
x	x	x

2. Click "CS1-0001", and rewrite the existing host name to that of the first CS-3 using upper case.

3. Press TAB key of the keyboard.

Cursor moves to "r_name" column.

4. Rewrite the existing host name to that of the first REGIUS 170 using lower case.
5. Press TAB key of the keyboard.
Cursor moves to "alert" column.
6. Input "1", and press TAB key.
The next line changes to the text input mode.
7. Input the host name of the first CS-3.
8. Press TAB key of the keyboard.
Cursor moves to "r_name" column.
9. Rewrite the existing host name to that of the second REGIUS 1790 using lower case.
10. Press TAB key of the keyboard.
Cursor moves to "alert" column.
11. Input "1", and press TAB key.
12. In a same manner, input the host name of the second CS-3 and REGIUS 190/170.
ex) Setting of all CS-3s and REGIUS 190/170s in the sytem example of the preceeding page.



c_name	r_name	alert
CS1-0025	r170-0001	1
CS1-0025	r170-0101	1
CS1-0026	r170-0100	1
CS1-0026	r170-0101	1

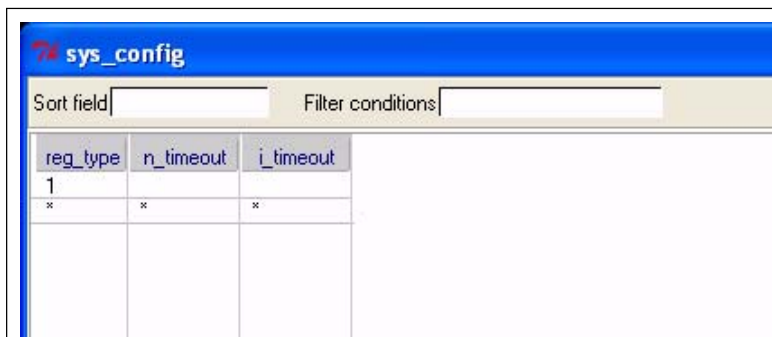
13. After completing the input, click [Reload] --> [Close].
"relations" screen will close, and switch to "PostgreSQL access" tool.

Set Up of the barcode Registration

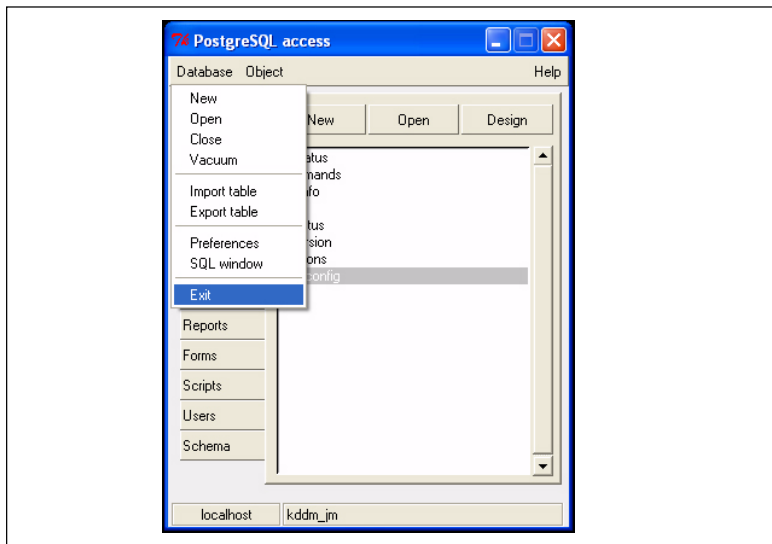
In this paragraph, how to set up the barcode registration of the system is described. At the factory, it is set to "Manual Registration"-(1), therefore it is essential to change the setting when using "barcode registration".

<Important>Always set it to "barcode Registration (0)" for "n to m connection". The setting made here must identical to that set in "Barcode Registered" on "JOBM INFO" screen.

1. Double-click [sys_config] of "PostgreSQL access" tool.
"sys_config" screen will be shown.



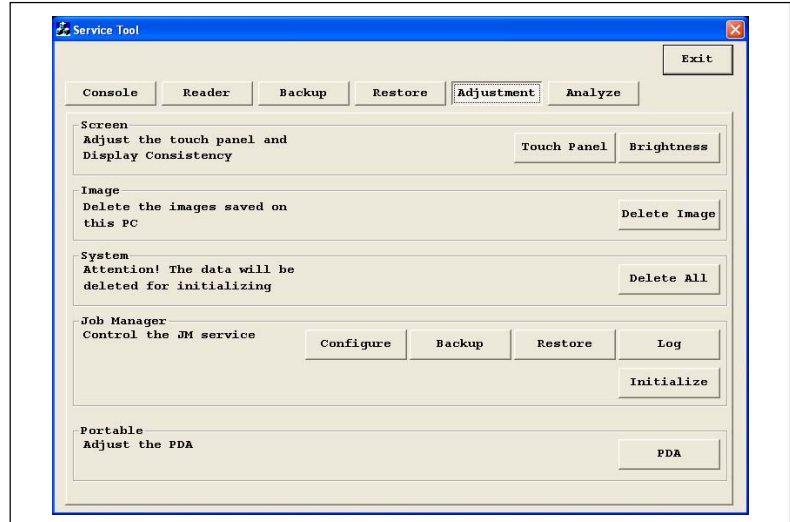
2. Input "0" in "reg_type".
3. Click [Reload] --> [Close].
"sys_config" screen closes, and switches to "Postgre SQL access" tool.
4. Click "Database" menu on "PostgreSQL access" screen, and select [Exit].



"PostgreSQL access" tool will close, and switches to "Service Tool" screen.

Back Up of JM Information After completing the set up to JM data base, back up the settings in a floppy disk.

1. Insert a floppy disk in the floppy disk drive of the CS-3.
2. Click [Backup] of "Service Tool".



The back up sequence starts.

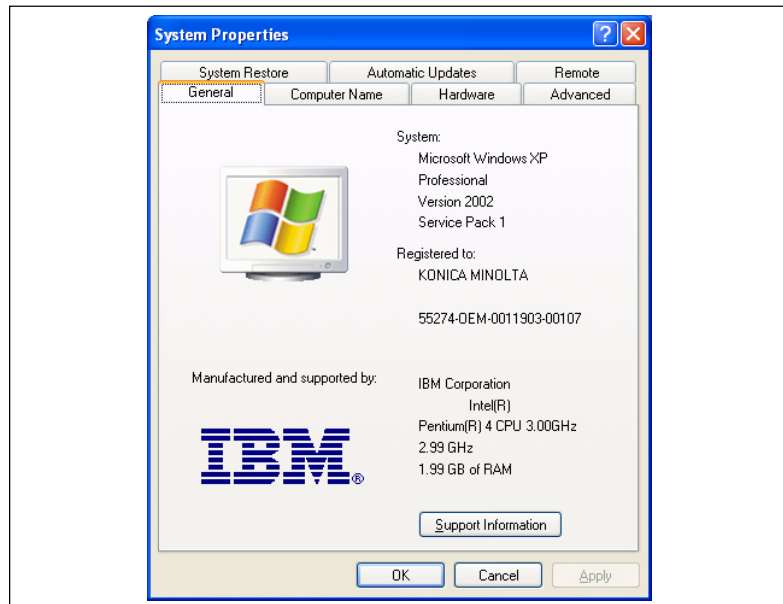
- "jbackup_jm" folder is created in the floppy disk, and the backed up data will be stored in this folder.

3. Remove the floppy disk for back up from the floppy disk drive.

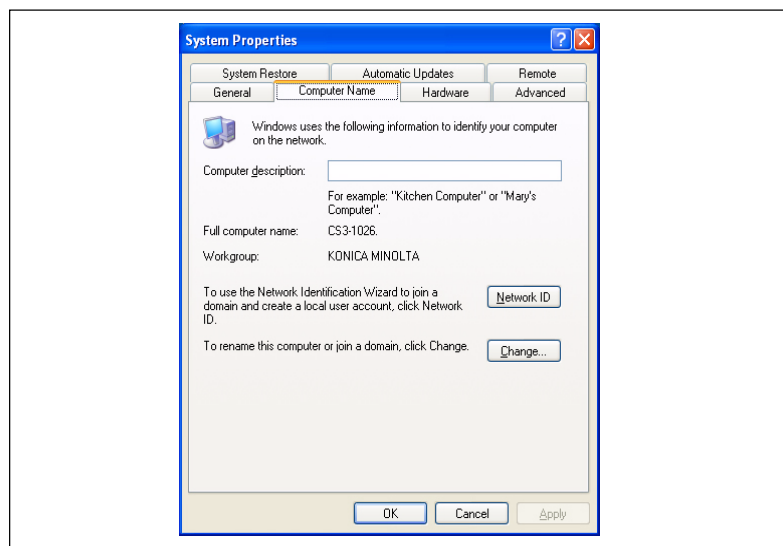
Setting the PC Name To enable the Windows to recognize the CS-3, set the PC name of the CS-3.

1. Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the "REGIUS Service" screen.
3. Click [Windows Desktop].
"REGIUS Service" screen will close, and Windows desk top will be shown.
4. Select [Conrol Panel] from [Start] menu.
"Control Panel" will be shown.

5. Double-click the "System" of the "Performance & Maintenance".
"Properties" dialogue of system will be shown.

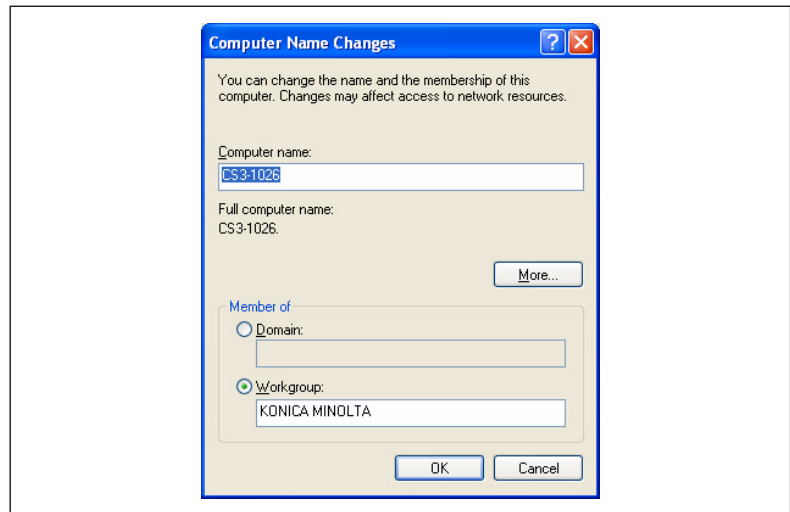


6. Click [Computer Name] tab.
"Computer Name" dialogue will be shown.



7. Click [Change] tab.

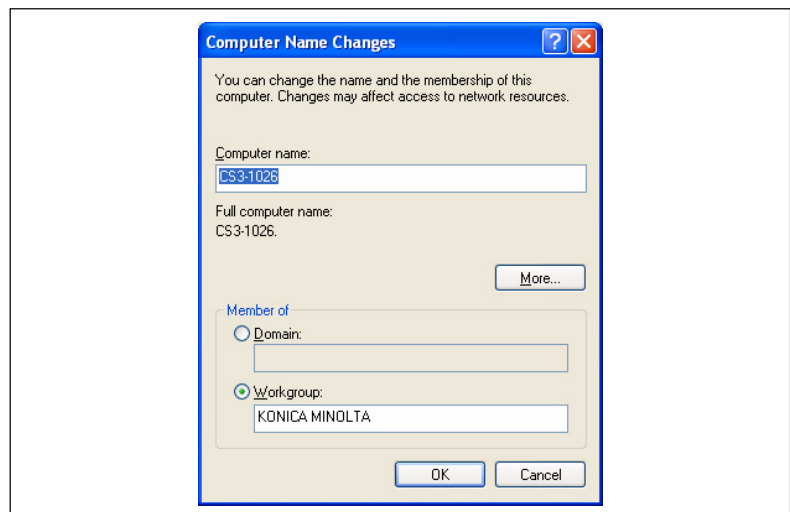
"Computer Name Changes" dialogue will be shown.



8. Input in [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then click [Workgroup] of [Member of], and input "KONICA MINOLTA".

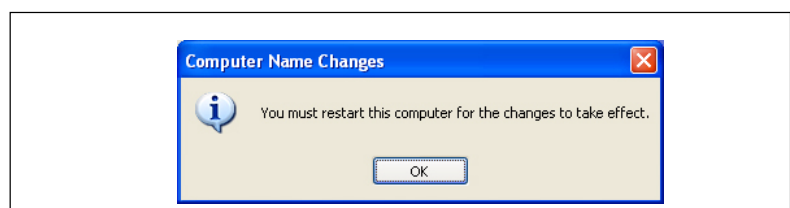
<Important>Always use upper case characters for input.

ex) Setting of the CS-3 #1(serial No. : 0026) in the system example of the preceeding page.



9. Click [OK].

Dialogue prompting a restart will be shown.



10. Click [OK].
Switches to the property dialogue of the system.
11. Click [OK].
Dialogue inquiring an immediate restart will be shown.
12. Click [Yes].
The Computer will restart, and the revised setting will become effective.

Terminating the System

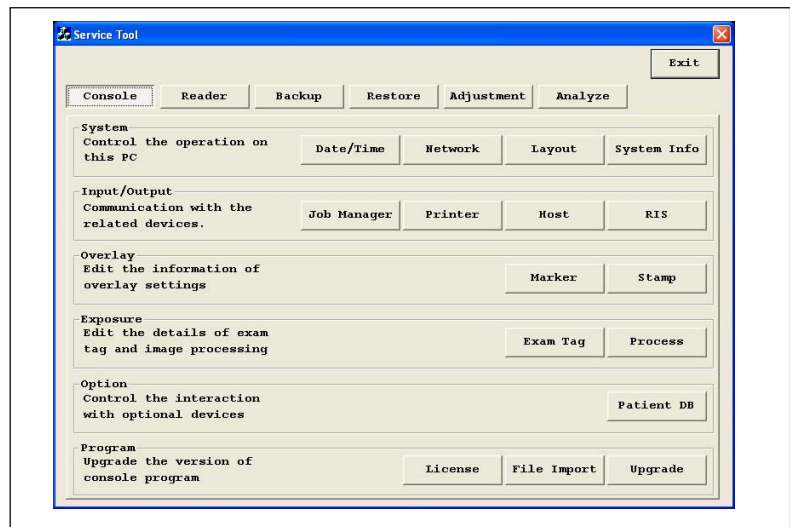
1. Wait for the initial screen of the CS-1/CS-3 application to be shown.
2. Click [KONICA MINOLTA].
System menu will be shown.
3. Click [Shutdown].
Termination sequence of CS-1/CS-3 application will be initiated. Upon closure of the CS-1/CS-3 application, the power of CS-3 will be turned off.
4. Disconnect the cables temporarily connected between the REGIUS 190/170 and the CS-3 Control Unit.

3.2.3 Set Up of CS-3 with Disabled Internal JM

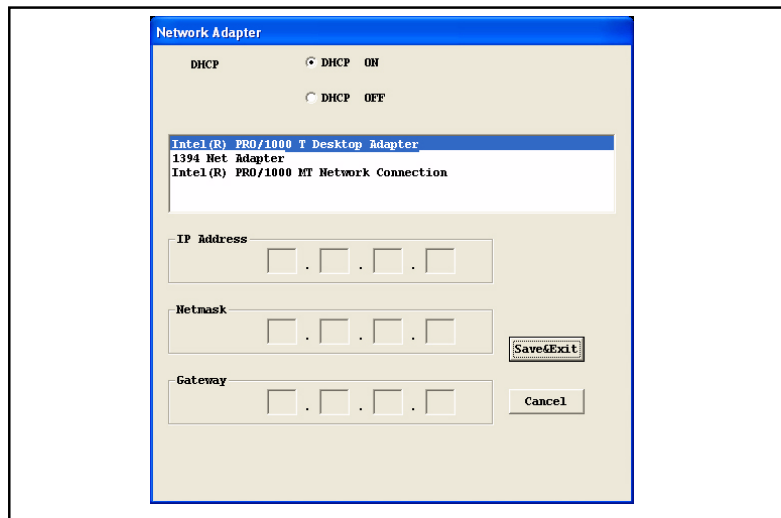
Set the JM that has internal JM but disabled. In the case that a dedicated reader(REGIUS 350) is connected to the CS-3, first move the device to the installation site, then carry out the set up by referring to ["5.2 Setting the System Properties"](#).

Setting the IP Address

1. Press the power switch of the CS-3 Control Unit and CS-3 Operation Unit to start up.
Wait for the initial screen to be shown.
2. Operate the mouse to show the "REGIUS Service Screen".
Refer to the "1.6.1 Service Tool Screens", 1-22 for the procedures to open the "REGIUS Service" screen.
3. Click [Service Tool].
"Password Input" screen will be shown.
4. Input the password(5678) for the service tool, and click [OK].
"Service Tool" screen(Console) will be shown.



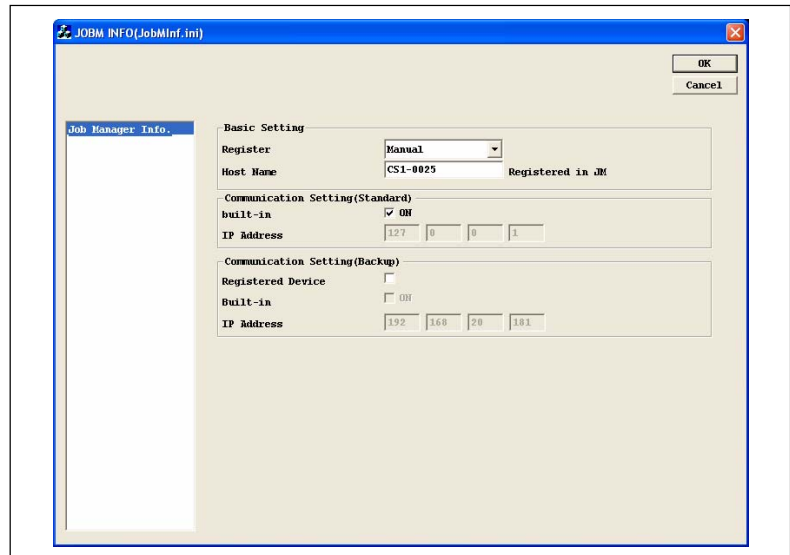
5. Click [Network] of "System".
"Network Adapter" screen will be shown.
 - A device name of the network adapter, IP address, Netmask, Gateway address currently assigned to the CS-3 will be shown on the network address screen.
 - In the case that an optional Ethernet card is installed, there shows 2 device names of network adapter.
"Intel (R) PRO/1000 MT Network Connection" is the device name of the Ethernet adapter incorporated in the CS-3, while "Intel (R) PRO/1000 T Desktop Adapter" is the device name of the additionally installed Ethernet board.



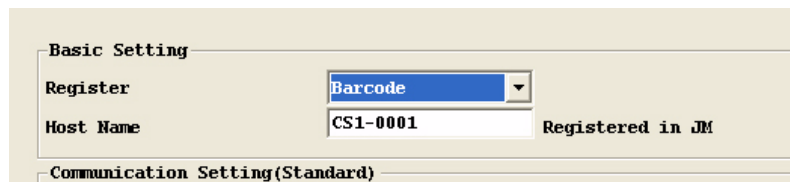
6. Click "Intel (R) PRO/1000 MT Network Connection" to select.
7. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.
8. When an optional Ethernet board is installed, click "Intel (R) PRO/1000 T Desktop Adapter", then click [DHCP OFF] button to select, input the IP address, subnet mask of the Ethernet board.
9. Click [Save & Exit], then click [Yes] of the confirmation dialogue. The screen will switch back to the Service Tool(console).

Setting the JM Information This setting regulates how the CS-3 is interfaced to the JM. It is not the one to set the function of the JM.

1. Click [Job Manager] of [Input/Output].
"JOBM INFO" screen will be shown.



2. Select [Barcode] of [Register].

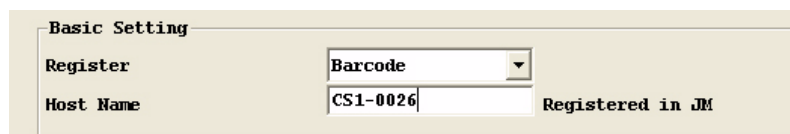


<Important>When the CS-3 is in "n to m connection", always select "Barcode Registration"

3. Input the host name (CS1-**** : **** indicates the serial number) of the CS-3 in [Host Name (Local)] using upper case.

<Important>Always use upper case characters to input the host name of CS-3.

Ex) Setting for the JM Built-in CS-3 #2 (serial Nr. 00265) shown in the case of the system example.



4. Click [ON] of "Internal Job Manager" to put out the check mark.

5. Input in the "IP Address" the IP address of the CS-3 that incorporates the JM.
Ex) Setting for the JM Built-in CS-3 #2 (serial Nr. 00265) shown in the case of the system example.
6. When the CS-3 is to be used as a backup JM, tick the check box for "Registered Device" in the "Communication Setting (Secondary)", and set as follows.

IP Address: 192.168.0.11

Communication Setting(Backup)

Registered Device: ☒

Built-in: ☒ ON

IP Address: 192.168.0.11

- Tick the check box for "Built-in".
- Input in the "IP Address" the IP address of the CS-3 itself.

7. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool(console).

Setting the Device Name Sets the number of REGIUS 190/170s to be connected to the CS-3 and the device name of the REGIUS 190/170s. This setting should be same as that made for the CS-3 with an activated internal JM.

1. Click [System Info] of [System].
"SYSTEM INFO" screen will be shown.

SYSTEM INFO

Institution Info.

Regius Info.

System(Reader)

System(Host, Printer)

System(RIS, Option)

System(Option2)

Order Info.

Study Info.

Timeout

Password-User>

Password-Service>

Output Priority

Log Level

My Network

HIPAA

Flipping Mark

Remote Maintenance

Institution Name: REGIUS CLINIC (Max. 60 Char.)

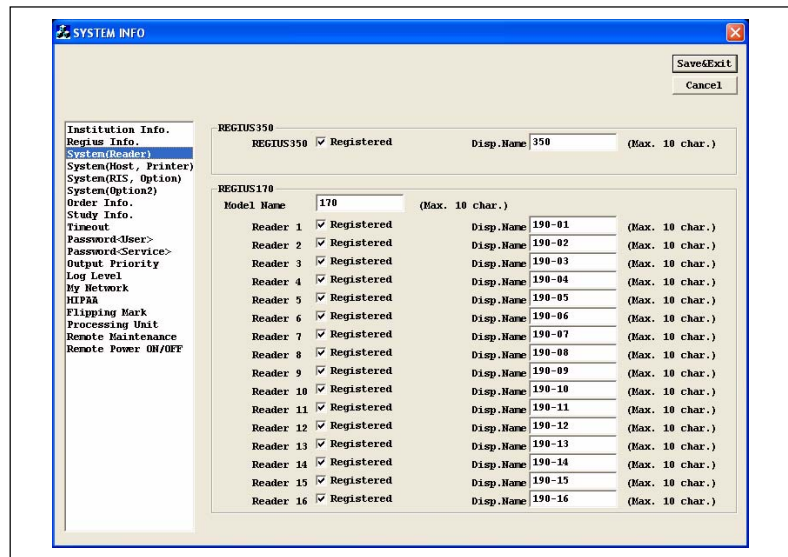
Institution Address: (Max. 60 Char.)

Department Name: Radiology (Max. 60 Char.)

Save&Exit

Cancel

2. Select "System Config. (reader)" in the set up list shown on the left of the screen.

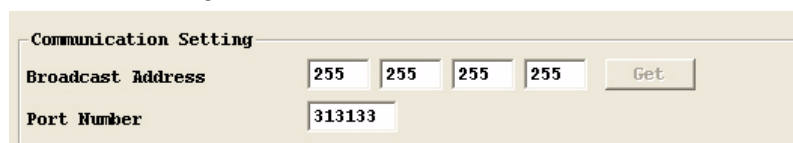


3. Put check marks on [Registered] of [REGIUS 170] as many as the number of REGIUS 190/170s to be connected.
4. Click "Model Name" box, and input the group name of the REGIUS 190/170(s).
This name is a group name generally applied to the REGIUS 190/170(s), and will be displayed on place (on the buttons of "Body Part/Exposure Condition Select" screen or "Examination Check" screen, where the modality is selected on the screens of CS-1/CS-3 application).
5. Click "Disp. Name of "Reader xx" whose "Registered" check box is checked, and input the name of each REGIUS 190/170.
This name will be shown on the "System Status" screen of the CS-1/CS-3 application. Put the name which can be easily identified by the user. (for example, a name of the X-ray room where the REGIUS 190/170 is installed; X-ray room #1, X-ray room #2)

When no back up JM is to be set, proceed to the step.7.

When the backup JM is set according to ["Setting the JM Information", 3-11](#) , it is necessary to set the "Broadcast address" and "Port number". Proceed with the step 6 onward.

6. Select the "CS-3 Network" in the setup menu in the left of the screen, and input "255.255.255.255" (fixed) in "Broadcast Address" of "Communication Setting".



- Leave the "Port Number" as default (313133), and do not change it.

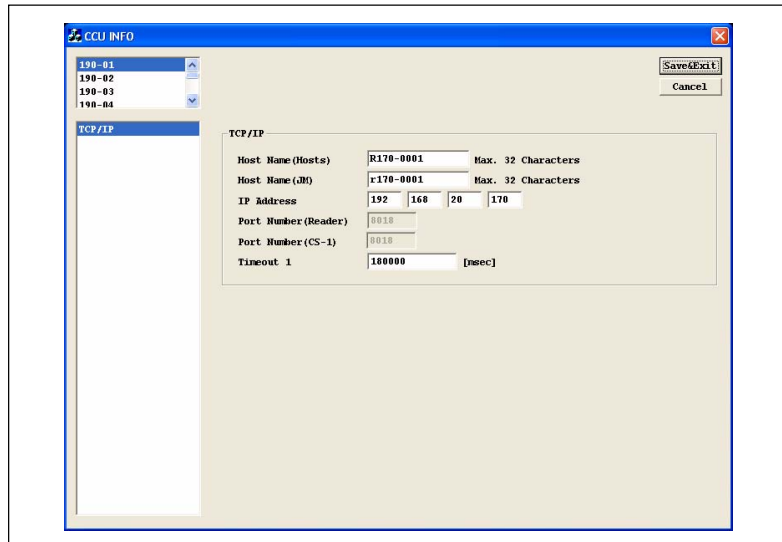
7. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool (console).

8. Click [Reader].

9. Click [Reader] of [Reader].

CCU INFO screen will be shown.

The display name of the REGIUS 190/170s that were input in the step. 5 will be shown on the reader list box on the upper left.



10. Select the device name of the first REGIUS 190/170 from the reader list shown on the upper left of the screen.

11. Input the host name(upper case) assigned to the first REGIUS 190/170 in [Host Name(Hosts)] of "TCP/IP".

- It will be displayed in upper case disregard of input type.

12. Input the host name(lower case) assigned to the first REGIUS 190/170 in [Host Name(JM)] of "TCP/IP".

<Important>Always use lower case characters for input.

13. Input the IP address assigned to the first REGIUS 170 in [IP Address] of "TCP/IP".

ex) Set up of the REGIUS170 #1(serial No. : 0100) of the system example in the preceeding page.

14. Select the device name of the second REGIUS 190 from the reader list shown on the upper left of the screen.

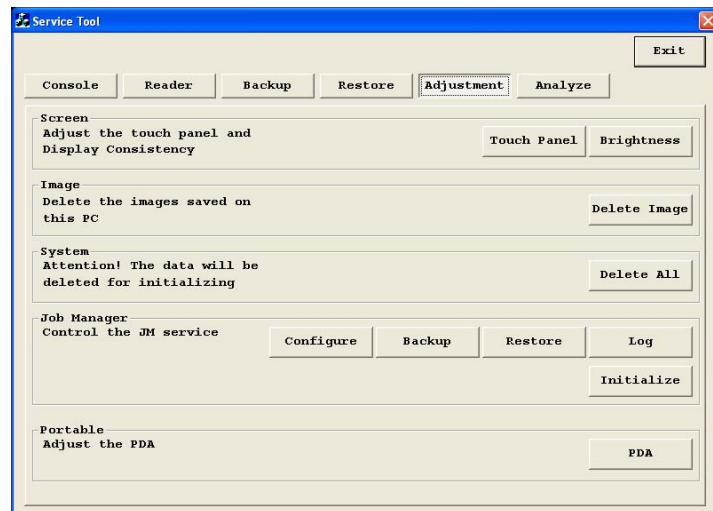
15. Repeat the step 11 through 13, input the "Host Name(Hosts)", "Host Name (JM)", and "IP Address" for the second REGIUS 190.

- 16.** Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool.

When the back up JM has been set in "[Setting the JM Information](#)", 3-11, step 6, carry out "Setting the Database of Back Up JM" in the next paragraph.
When no back up JM is to be used, proceed to "[Setting the PC Name](#)", 3-59 .

Setting the Database of Back Up JM Set on the back up JM the same database as set in "Set Up of JM Data Base", 3-39.

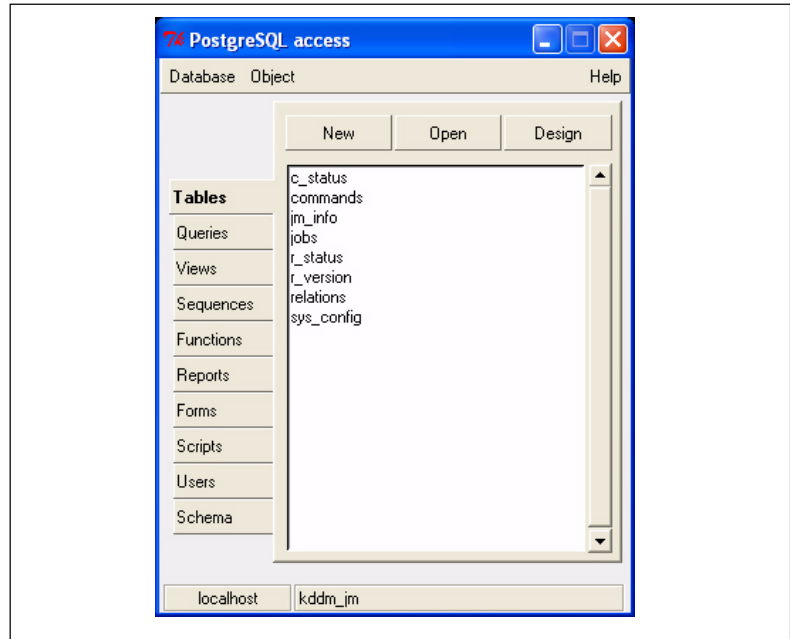
1. Click "Adjustment" of the "Service Tool" screen.



2. Insert a floppy disk in which the data is backed up according to "Back Up of JM Information", 3-45 into the floppy disk drive of the CS-3 Control Unit.
3. Click "Restore" of "Job Manager".
Restoration starts. After completing restoration, command prompt will close. This operation completes the duplication of the CS-3 #1 contents onto the JM database incorporated in the CS-3.
4. Remove the floppy disk for back up from the floppy disk drive.

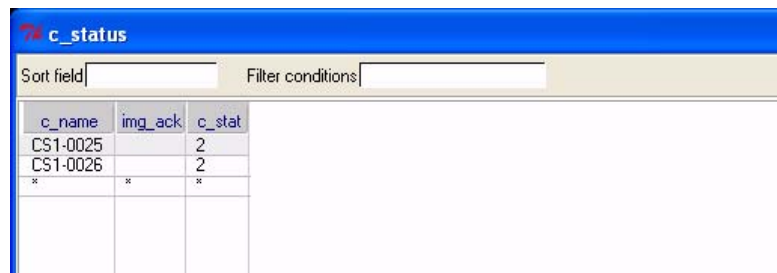
5. Click "Configure" of "Job Manager"

PostgreSQL access tool will start.



6. Double-click [c-status] of PostgreSQL access tool.

"c_status" screen will be displayed.



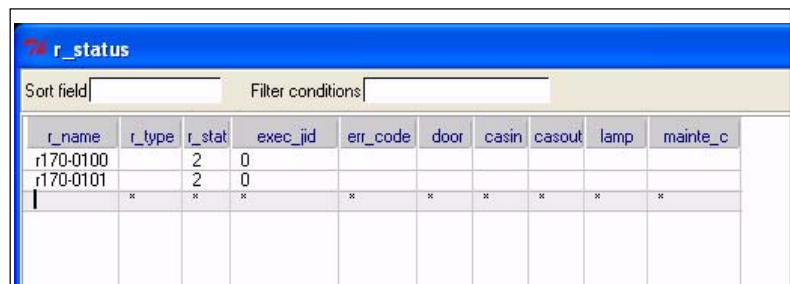
7. Check that the host name of CS-3 in "c_name" is correct, and "c_stat" value for each CS-3 is set to "2".

- If "c_stat" is not set to "2", click the number and input "2".

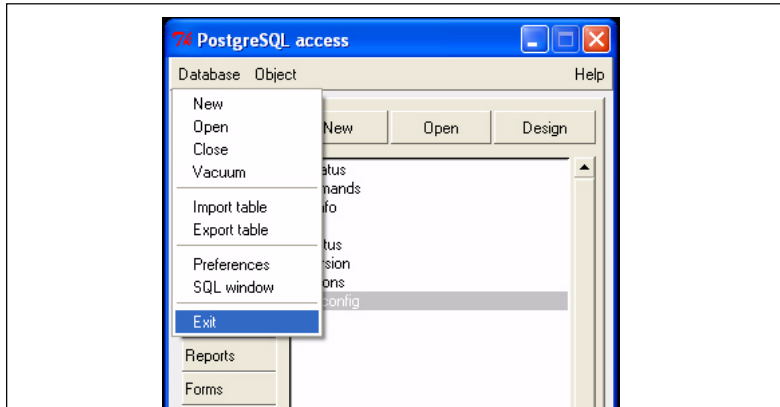
8. Click [Exit] after having verified the setting is correct.

9. Double-click [r-status] of PostgreSQL access tool.

"r_status" screen will be displayed.



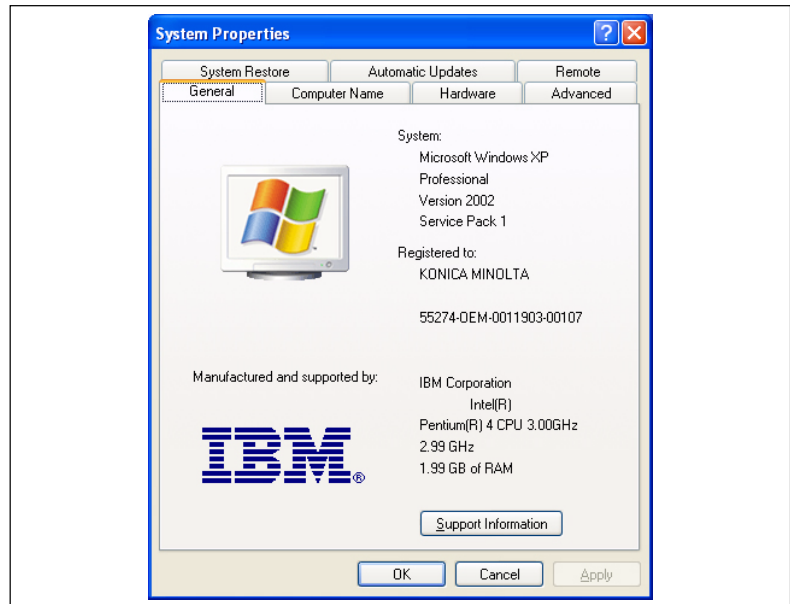
10. Check that the host name of REGIUS 190/170 in "r_name" is correct, and "r_stat" value for each REGIUS 170 is set to "2".
 - If "r_stat" is not set to "2", click the number and input "2".
11. Click [Exit] after having verified the setting is correct.
12. Click "Database" menu of "PostgreSQL access" window, and select "Exit".



PostgreSQL access tool closes and returns to the "Service Tool" screen.

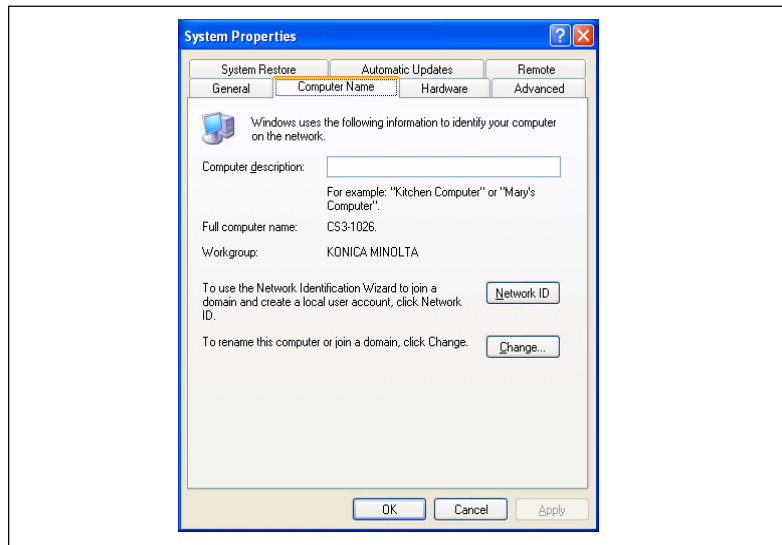
Setting the PC Name To enable the Windows to recognize the CS-3, set the PC name of the CS-3.

1. Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the "REGIUS Service Screen".
3. Click [Windows Desktop].
REGIUS Service Screen will close, and Windows desk top will be shown.
4. Select [Control Panel] from [Start] menu.
"Control Panel" will be shown.
5. Double-click the "System" of the "Performance & Maintenance".
"Properties" dialogue of system will be shown.



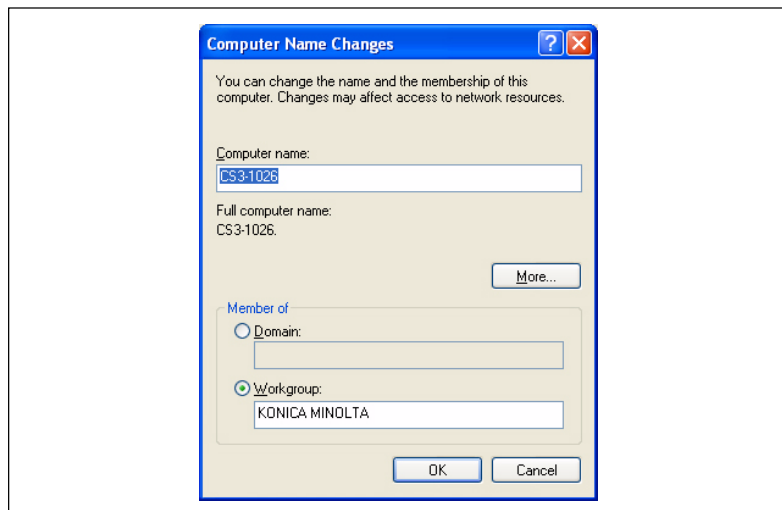
6. Click [Computer Name] tab.

"Computer Name" dialogue will be shown.



7. Click [Change] tab.

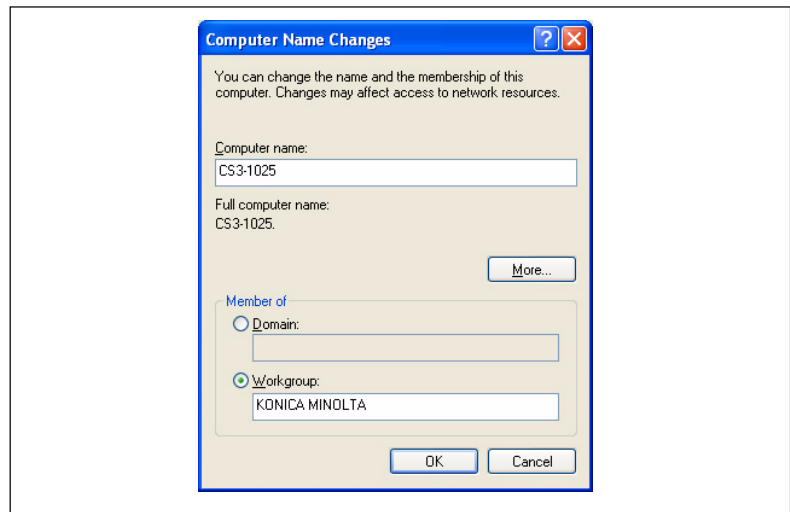
"Computer Name Changes" dialogue will be shown.



8. Input in the [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then input "KONICA MINOLTA" in [Work group] of [Member of].

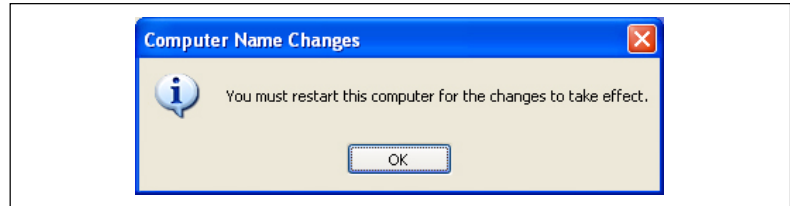
<Important>Always use upper cases to input.

ex) Setting of the CS-3(serial No. : 0025) in the system example of the preceding page.



9. Click [OK].

Dialogue prompting a restart will be shown.



10. Click [OK].

Switches to the property dialogue of the system.

11. Click [OK].

Dialogue inquiring an immediate restart will be shown.

12. Click [Yes].

The Computer will restart, and the revised setting will become effective.

<Important>An error message will be shown on the "REGIUS Service" screen after completing the start up sequence of the CS-3 (without JM) in "n to m" configuration. This occurs because the CS-3 cannot access to the JM. This is normal consequence at this point, and no remedy is required.

Terminating the System

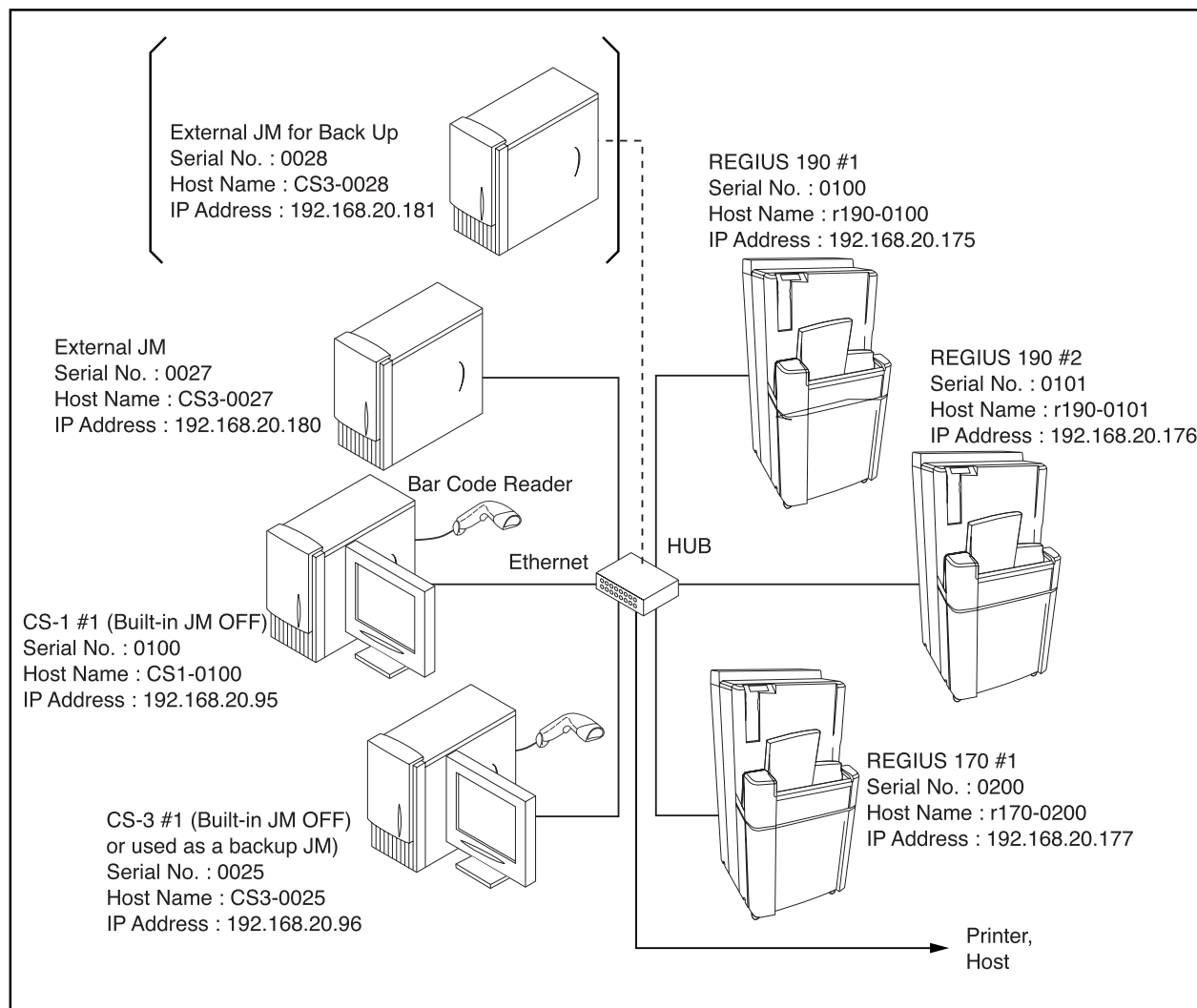
1. Click [OK] of the error message.
2. Click [Shut down] of the "REGIUS Service Screen".
"REGIUS Service" screen will close, followed by termination sequence of the Windows, and the power of CS-3 will be turned off.

3.3 Setting "n to m Connection"(External JM)

In this paragraph, how to set up the "n to m connection" where an external JM is networked is described.

Also explained here is the case that an external JM exclusively for back up purpose is to be installed, or one of CS-3s is to be set up as an back up JM. Only one backup JM can be setup in the system.

The example described in this paragraph is based on the system configured as shown in the following.



<Important> In the "n to m connection", the barcode registration method must be set to "barcode Registration".

<Important> It is required to update the SCB_CF software version of REGIUS 170 to V2.00R01 and the MCB firmware version to Ver.100R21 or later to read the image scanned on the REGIUS 170 using the CS-3.

<Important> It is required to update the software version of CS-1 to V2.00Rxx or later to read the image scanned on the REGIUS 190 using the existing CS-1.

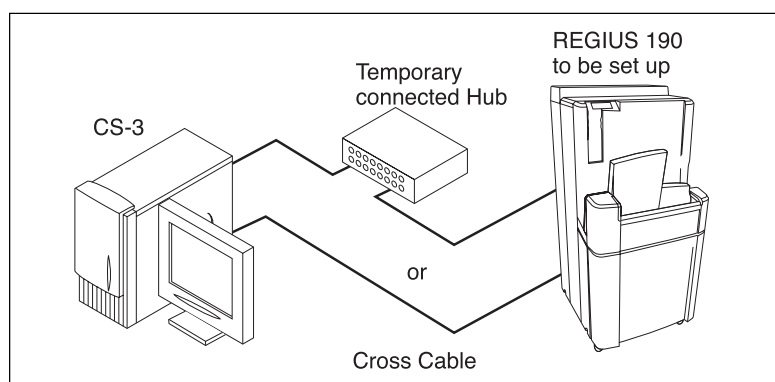
3.3.1 Network Setting of REGIUS 190/170

Temporary Connection of CS-3 and REGIUS 190/170

To enable the CS-3 to implement the set up of REGIUS 190/170 via Ethernet, both have been set up at the factory so that they can communicate using the factory setting. The set up of REGIUS 190/170 in the below shall be made by temporary connecting the CS-3 in "1 to 1" configuration.

1. Plug the power cables of CS-3 Control Unit, CS-3 Operation Unit, and REGIUS 190/170 into wall outlet.
2. Connect the CS-3 and REGIUS 190/170 in 1 to 1 using cross cable or hub.

<Important> This connection is a temporary case purely for the purpose of setting the REGIUS 190/170. Do not connect several units of REGIUS 190/170 to hub at the same time. Doing so hinders recognition of each device due to the fact that all of REGIUS 190/170 are preset at the same IP address, and in consequence it becomes impossible to set up.



<Important>When an optional Ether board is installed on the CS-3, connect the REGIUS 190/170 to the standard port of CS-3.

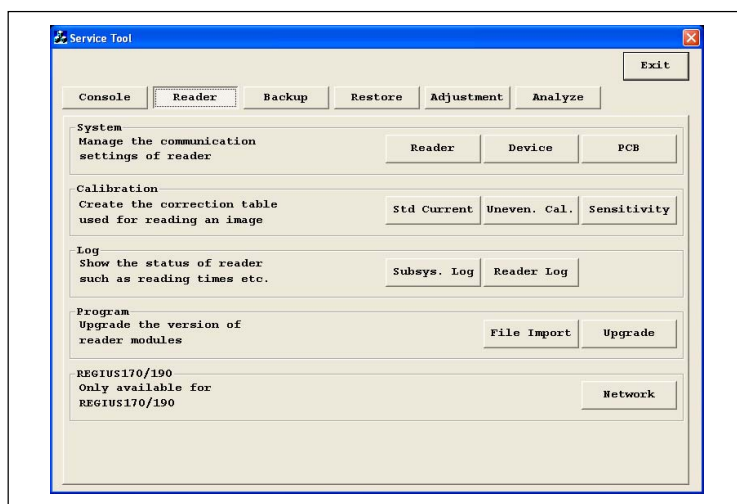
<Important>If the setting of CS-3 or internal JM is changed before setting the REGIUS 190/170, setting of the REGIUS 190/170 becomes impossible because the communication with REGIUS 190/170 is disabled. If such happens, reset the setting of CS-3 to that of the factory setting, and try again.

Start Up of CS-3 and REGIUS 190/ 170

1. Press the power buttons of the CS-3 Control Unit and CS-3 Operation Unit to start.
Wait for the "Exam Search" screen appears on the CS-3 Operation Unit.
2. Turn ON the circuit breaker of REGIUS 190/170.
3. Press the Operation switch of the REGIUS 170 to turn ON the power.
Wait for the REGIUS 170 to complete initialization and to show "READY" on the LCD.

Setting the Network Condition Following procedures shall be initiated from the CS-3 Operation Unit.

1. Operate the mouse or touch panel to open the REGIUS Service Screen.
Refer to "Service Tool Screens", 1-22 for the procedure to open the REGIUS Service Screen.
2. Click [Service tool].
A password input screen will be shown again.
3. Input a service tool password(5678), and click [OK].
Service Tool screen(Console) will be shown.
4. Click [Reader].
Service Tool screen(Reader) will be shown.



5. Click [Network] listed on the bottom row of "REGIUS 170/190".

Current status of networking information acquired from REGIUS 170 will be shown on the "Network Info." screen.

6. When the REGIUS 170 is to be set, untick the check mark for "Set R190".

7. Input the network condition for REGIUS 190/170 in the "Reader" column by referring to the following table.

for REGIUS 190

Item to be set	Description
Host Name	Input the host name of the target REGIUS 190. <u>r190-****</u> : **** indicates the serial number. <Important>Always use lower cases to input.
Gateway	Input the IP address of the gateway when the CS-3 and REGIUS 190 are connected via gateway.
IP Address	Input the IP address of the REGIUS 190.
Netmask	Input the subnet mask of the REGIUS 190.

for REGIUS 170

Item to be set	Description
Host Name	Input the host name of the target REGIUS 170. <u>r170-****</u> : **** indicates the serial number. <Important>Always use lower cases to input.
IP Address	Input the IP address of the REGIUS 170.
Netmask	Input the subnet mask of the REGIUS 170.

- When the check mark for "Set R190" is unticked, Gateway setting becomes invalid.

Ex) Setting of REGIUS 170# 1 (serial Nr. 0100) in the system of the preceding page.

8. Input in "DBHOST" of "Console/JobManager" the host name (lower case) of the JM with which the REGIUS 190/170 communicate.

Item to be set	Description
DBHOST	Input the host name of the external JM. It is fixed as "jm1-0001". Always use lower cases to input.
Port No.	Change the port No. with which the CS-3 communicates with the REGIUS 190/170. <Important> Do not change unless otherwise instructed.

- When the check mark for "Set R190" is unticked, Port No. setting becomes invalid.

ex)

9. In the list of "Hosts", select the host name for CS-3, and click "Edit".
Edit dialogue will be shown.

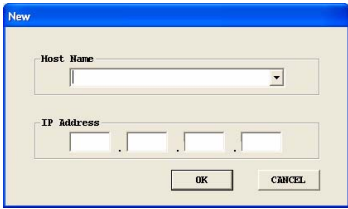
10. Input the host name and IP address of the external JM which will be connected to the REGIUS 190/170. Then click [OK].

<Important>The host name of the external JM is fixed as "jm1-0001".
Always use lower cases to input the host name of external JM.

Confirmation dialogue for rewriting will be shown.

11. Click "Yes".
The host name and IP address that were input in the "Hosts" list will be shown.

12. Click [New].
New dialogue will be shown.

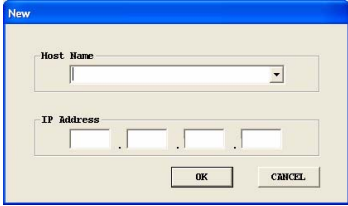


13. Input the host name and IP address of the first CS-3 (CS-3#1) which will be controlled by the JM.

<Important>Always use upper case characters to input the host name of CS-3.
Confirmation dialogue for rewrite will be shown.

14. Click [Yes].
The host name and IP address that were input in the "Hosts" list will be shown.

15. Click [New].
New dialogue will be shown.



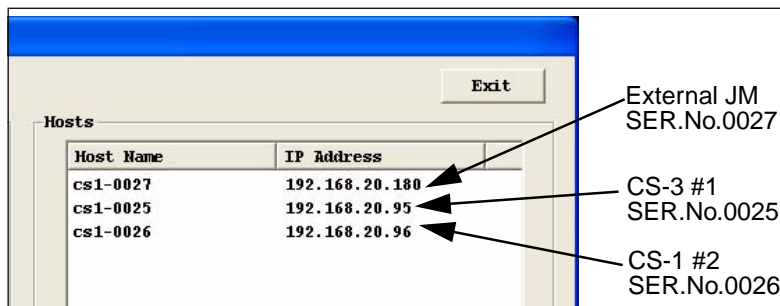
16. Input the host name and IP address of the second CS-3(CS-3 #2) which will be connected to the REGIUS 190/170.

<Important>Always use upper case characters to input the host name of CS-3.
Confirmation dialogue for addition will be shown.

17. Click "Yes".

The host name and IP address that were input in the "Hosts" list will be shown.

ex) Setting of the JM and CS-3 in the system example of the preceeding page.

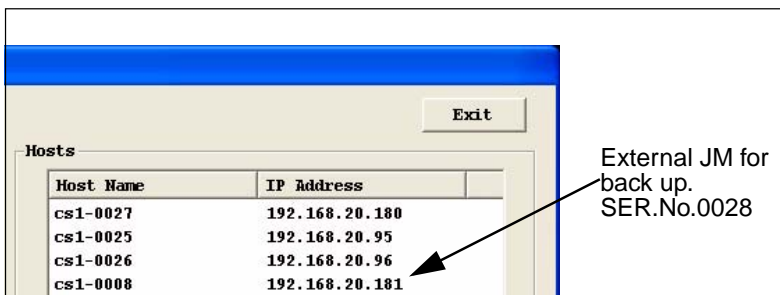


18. When installing an external JM for back up, input the host name (jm1-0002 fixed) and IP address of external JM for back up in a same manner as step 15 through 17.

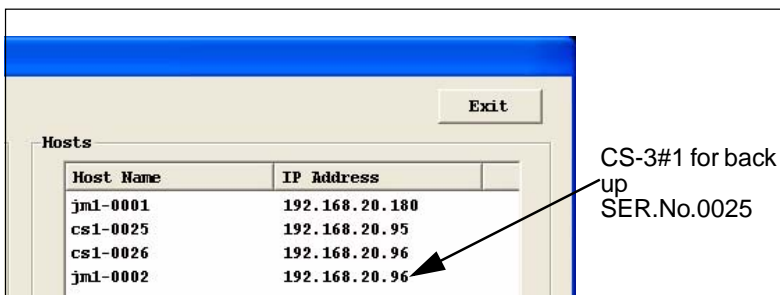
- When an external JM is used as a back up;
Input the host name "jm1-0002" and IP address "192.168.20.181".
- When one (CS-3#1) of CS-3s is used as a back up;
Input the host name "jm1-0002" and IP address "192.168.20.95".

<Important>Always use lower cases to input the host name of the back up JM.

Ex) When an external JM is used as a back up.



Ex)When CS-3#1 is used as a back up.



19. After checking that the host name shown in the "Hosts" list and the IP address is correct and not duplicating the other, then click "Send".

The setting shown on the screen will be sent to the REGIUS 190/170, and the network setting will be altered.

- These setting conditions will be written in the CF(Compact Flash) of the REGIUS 190/170.

20. Click [Exit] to close the "Network Info." screen.
Returns to the Service Tool screen.
21. Press and hold the operation button for 5 seconds to turn off the power of the REGIUS 190/170.
22. Turn OFF the power breaker of the REGIUS 190/170.

<Important> In the case that the CS-3/CS-1s and REGIUS 190/170s are connected in "n" to "m" configuration, the settings for "Console/JobManager" and "Hosts" should be same for all REGIUS 190/170s to be connected. "Host Name" and "IP Address" of "Reader" should be unique for each REGIUS 190/170.

<Caution> The REGIUS 190/170 whose network condition has been changed is no more capable of communicating with the CS-3/CS-1 until the network condition of the external JM (and JM's database) is newly set up. Upon the start up of the REGIUS 190/170, a network error will be shown on the LCD after completing the initialization, and its own MAC address and IP address will brink alternately.



Terminating the System

1. Click [Exit] of the "Service Tool" screen.
Confirmation dialogue will be shown.
2. Click [Yes].
Switches to the "REGIUS Service Screen".
3. Click [Shutdown].
"REGIUS Service" screen closes, and termination sequence of Windows follows. Upon closure of the CS-1/CS-3 application, the power of CS-3 will be turned off.
4. Turn off the main power switch located on the back of the unit.
5. Remove the Ethernet cable that is temporary connected between the CS-3 control unit and the REGIUS 190/170.

Implementing the above procedures completes the set up one REGIUS 190/170.

To set up all REGIUS 190/170s for connection, repeat the procedures starting from "[Temporary Connection of CS-3 and REGIUS 190/170](#)", 3-4.

To set up the external JM later, proceed to "3.3.3 Set Up of the CS-3", 3-86, and carry out the set up of the CS-3.

3.3.2 Set Up of External JM

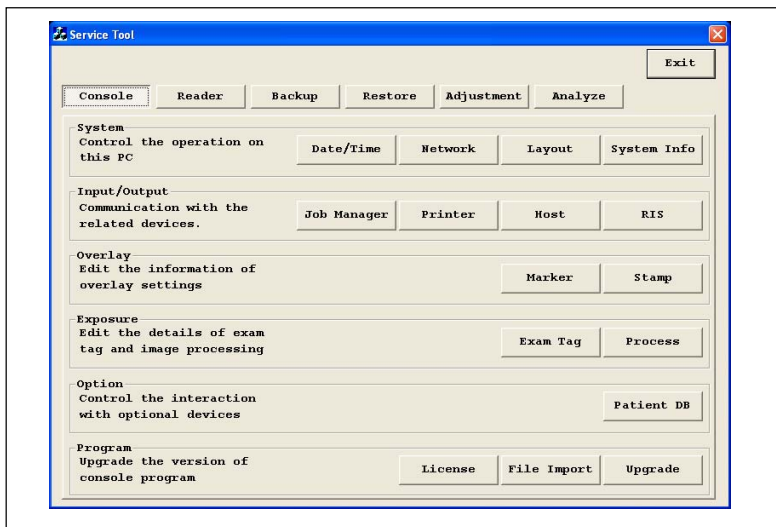
After completing the set up of all REGIUS 190/170s, set up the CS-3 that has an activated JM.

The PC to function as JM is in principle the same as CS-3. However, the operation unit which has a touch-panel for operation does not belong to the unit. To implement the set up of the PC for JM, use the operation unit of other CS-3. Once the JM is set up, a display is not necessary.

- Refer to 3.3.3 "Set Up of the CS-3", 3-86 and later for the set up of CS-3 itself.

Setting the IP Address

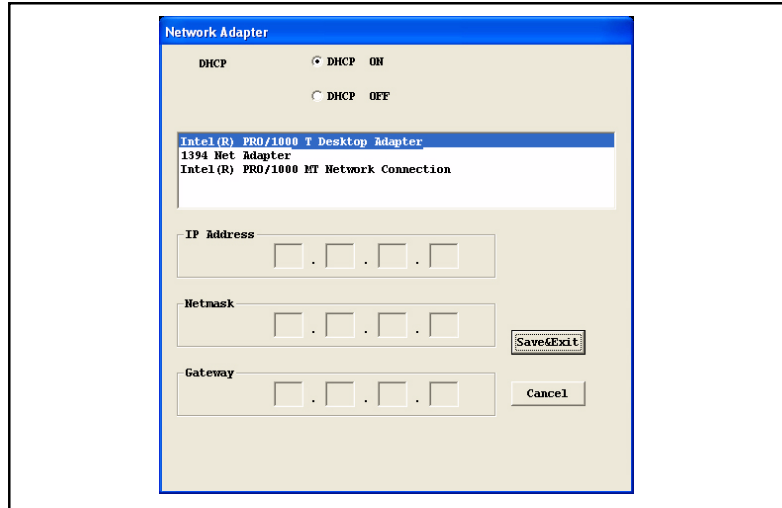
1. Press the power button of the CS-3 Control Unit and CS-3 Operation Unit to start the CS-3 for JM.
 - Wait for the "Exam Search" screen to be shown on the CS-3 Operation Unit. CS-1/CS-3 application starts on the JM as it starts on the CS-3.
2. Operate the mouse to show the "REGIUS Service Screen".
Refer to the "1.6.1 Service Tool Screens", 1-22 for the procedures to open the "REGIUS Service Screen".
3. Click [Service Tool].
"Password Input" screen will be shown.
4. Input the password(5678) for the service tool, and click [OK].
"Service Tool" screen(Console) will be shown.



5. Click [Network] of "System".

"Network Adapter" screen will be shown.

- A device name (Intel (R) PRO/1000 MT Network Connection) of the network adapter of the incorporated Ethernet adapter, IP address, Netmask gateway address currently assigned to the PC will be shown on the network address screen.



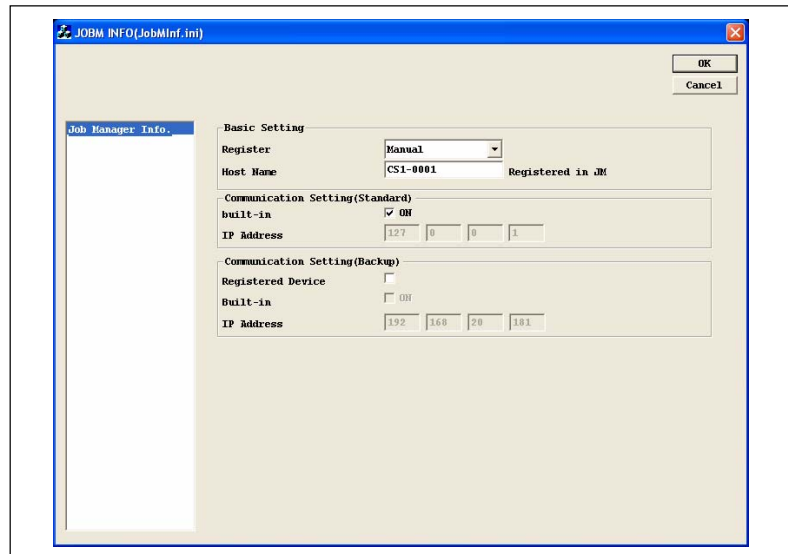
6. Click "Intel (R) PRO/1000 MT Network Connection" to select.

7. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.

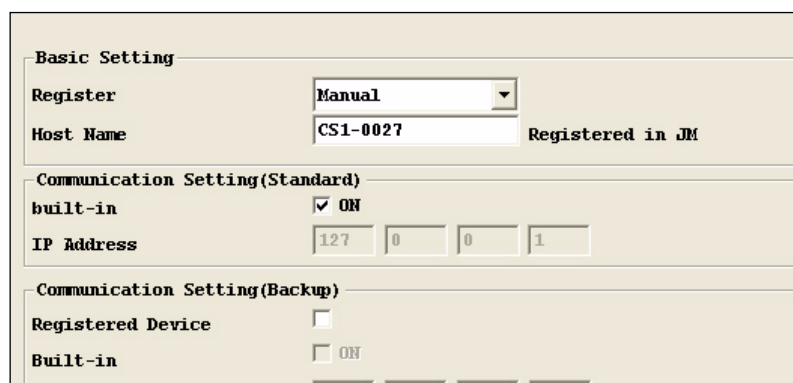
8. Click [Save & Exit], then click [Yes] of the confirmation dialogue. The screen will switch back to the "Service Tool" screen(console).

Setting the JM Information

1. Click [Job Manager] of [Input/Output].
JOBM INFO screen will be shown.



2. Select [Barcode] of [Register].
3. Input the host name(CS1-**** . **** indicates the serial number) of the External JM in [Host Name].
<Important>Always use upper case characters to input the host name of the external JM.
4. Check that [ON] of "Job Manager (Build-in)" is checked(selected).
ex) Set up of the JM(serial No. 0027) in the system example of the preceeding page.



5. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the "Service Tool" screen(console).

6. Click [Sytem Info.] of [System].
 "SYSTEM INFO" screen will be shown.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.

REGIUS CLINIC (Max. 60 Char.)

Institution Address (Max. 60 Char.)

Radiology (Max. 60 Char.)

REGIUS Info.
 System(Reader)
 System(Host, Printer)
 System(RIS, Option)
 System(Option2)
 Order Info.
 Study Info.
 Timeout
 Password-User>
 Password-Service>
 Output Priority
 Log Level
 My Network
 HIPAA
 Flipping Mark
 Remote Maintenance

7. Select "System (Reader)" in the set up list on the left of the screen.

SYSTEM INFO

Save&Exit
Cancel

System(Reader)

REGIUS 350
 REGIUS 350 ☒ Registered Disp.Name 350 (Max. 10 char.)

REGIUS 170
 Model Name 170 (Max. 10 char.)

Reader	Registered	Disp.Name	(Max. 10 char.)
Reader 1	<input checked="" type="checkbox"/>	190-01	(Max. 10 char.)
Reader 2	<input checked="" type="checkbox"/>	190-02	(Max. 10 char.)
Reader 3	<input checked="" type="checkbox"/>	190-03	(Max. 10 char.)
Reader 4	<input checked="" type="checkbox"/>	190-04	(Max. 10 char.)
Reader 5	<input checked="" type="checkbox"/>	190-05	(Max. 10 char.)
Reader 6	<input checked="" type="checkbox"/>	190-06	(Max. 10 char.)
Reader 7	<input checked="" type="checkbox"/>	190-07	(Max. 10 char.)
Reader 8	<input checked="" type="checkbox"/>	190-08	(Max. 10 char.)
Reader 9	<input checked="" type="checkbox"/>	190-09	(Max. 10 char.)
Reader 10	<input checked="" type="checkbox"/>	190-10	(Max. 10 char.)
Reader 11	<input checked="" type="checkbox"/>	190-11	(Max. 10 char.)
Reader 12	<input checked="" type="checkbox"/>	190-12	(Max. 10 char.)
Reader 13	<input checked="" type="checkbox"/>	190-13	(Max. 10 char.)
Reader 14	<input checked="" type="checkbox"/>	190-14	(Max. 10 char.)
Reader 15	<input checked="" type="checkbox"/>	190-15	(Max. 10 char.)
Reader 16	<input checked="" type="checkbox"/>	190-16	(Max. 10 char.)

REGIUS Info.
 System(Reader)
 System(Host, Printer)
 System(RIS, Option)
 System(Option2)
 Order Info.
 Study Info.
 Timeout
 Password-User>
 Password-Service>
 Output Priority
 Log Level
 My Network
 HIPAA
 Flipping Mark
 Remote Maintenance

8. Put out all check marks from [Device Registered] of [REGIUS 350] and [REGIUS 170].
9. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
 Switches to "Service Tool" screen(Console).

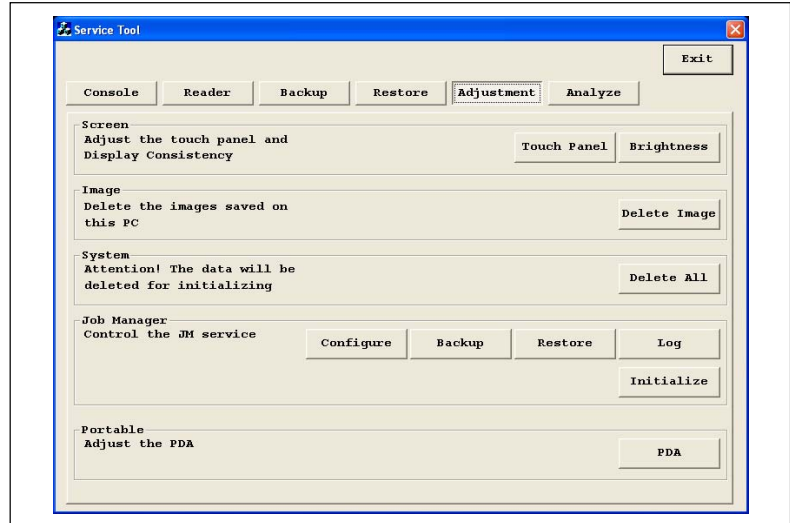
Set Up of JM Data Base Register in the JM data base the information of the CS-3s and REGIUS 190/170s that the JM controls.

Use the incorporated PostgreSQL tool to implement the set up.

<Important>With "PostgreSQL" tool, always use upper case to input the host name of the CS-3 whereas use lower case to input the host name of the REGIUS 190/170.

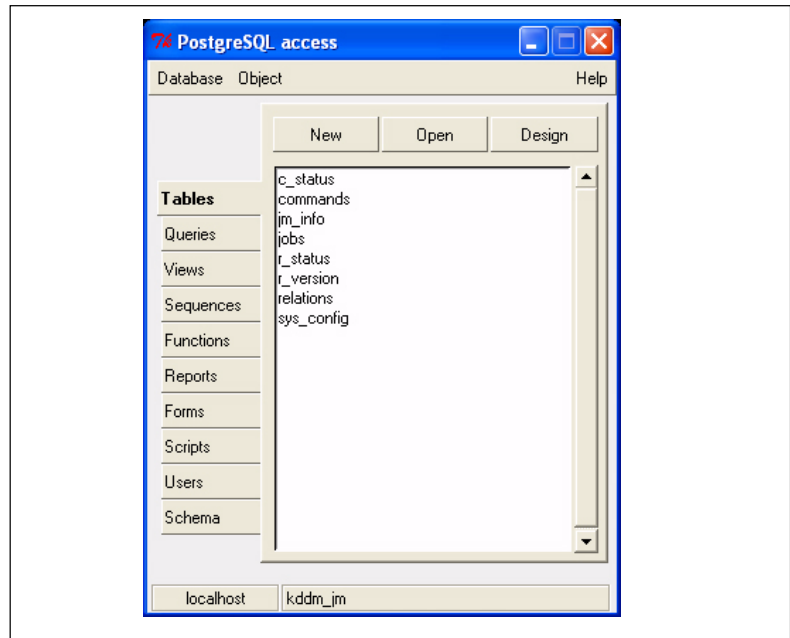
1. Click [Adjustment] on the Service Tool screen.

"Service Tool" screen (adjust) will be shown.



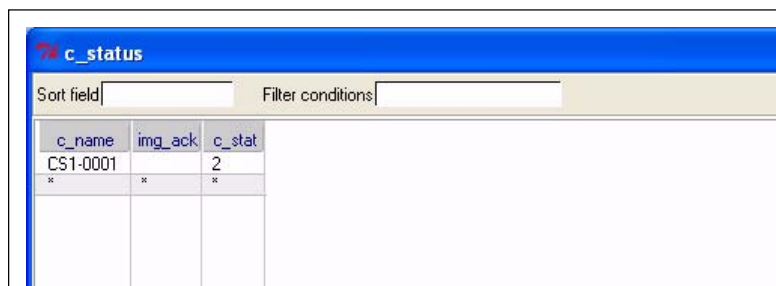
2. Click [Configure] of "Job Manager".

PostgreSQL access tool will start.



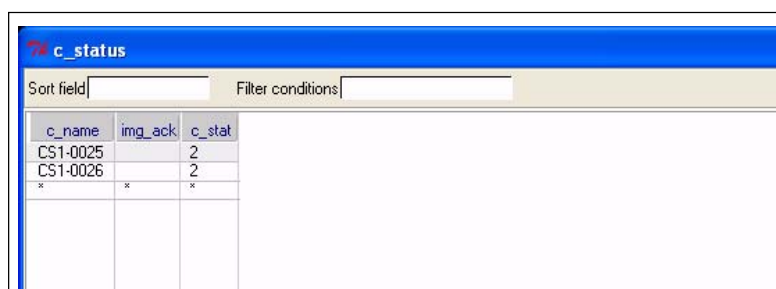
Registering the Information of CS-3 and REGIUS 190/170

1. Double-click [c_status] of "PostgreSQL access" tool.
"c_status" screen will be shown.



c_name	img_ack	c_stat
CS1-0001	x	2

2. Click [CS1-0001].
Switches to the text input mode.
3. Rewrite "CS1-0001" to the host name(upper case) of the first CS-3 which will be controlled by the JM.
4. Press TAB key on the keyboard.
Cursor moves to the row of "c_stat".
5. Input "2", and press TAB key.
6. Input the host name of the second CS-1 which will be controlled by the JM, and press TAB key.
7. Input "2", and press TAB key..
The next line will change to the text input mode.
ex)



c_name	img_ack	c_stat
CS1-0025	x	2
CS1-0026	x	2

<Important>When more CS-3/CS-1s are to be networked, input the host name of all CS-3/CS-1s which will be controlled by the JM in a same manner, and input "2" in each "c-stat".

8. After completing the input, click [Reload].
9. Check that all inputs are correctly made, then click [Close].
"c_status" screen will close, and switch to "PostgreSQL access" tool.

10. Double-click [r_status] of "PostgreSQL access" tool.
 "r_status" screen will be shown.

r_name	r_type	r_stat	exec_jid	err_code	door	casin	casout	lamp	mainte_c
r170-0001	x	2	0	x	x	x	x	x	x

11. Click [r170-0001].
 Switches to the text input mode.
12. Rewrite "r170-0001" to the host name(lower case) of the first REGIUS 190 (#1) which will be controlled by the JM.
13. Press TAB key of the keyboard.
 Cursor moves to "r_type" row.
14. Input "V", and press TAB key.
 Cursor moves to "r_stat" row.
15. Input "2", and press TAB key.
 The next row becomes input mode.
16. Input the host name of the REGIUS 190 (#2), "V" in [r_type], "2" in [r_stat], and press TAB key.
17. Input the host name of REGIUS 170 (#1), "2" in [r_stat], and press TAB key.

<Important>To connect more REGIUS 190/170s, input the host name of all REGIUS 190/170s which will be controlled by the JM, and input "2" in each "r_stat".

<Important>When registering the REGIUS 170s, do not input anything in [r_type].

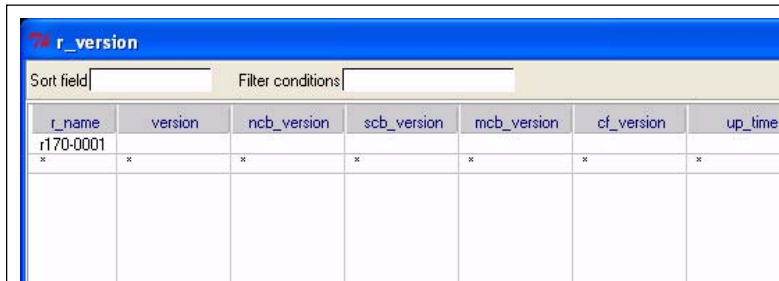
ex)

r_name	r_type	r_stat	exec_jid	err_code	door	casin	casout	lamp	mainte_c
r170-0100	x	2	0						
r170-0101	x	2	0						
r170-0102	x	2	0						

18. After completing the input, click [Reload].

19. Check that all input data is correct, and click [Close].
 "r_status" screen closes, and switches to "PostgreSQL access" tool.

20. Double-click [r_version].
 "r_version" screen will be shown.



r_name	version	ncb_version	scb_version	mcb_version	cf_version	up_time
r170-0001						

21. Click "r170-0001".
 Switches to the text input mode.
22. Rewrite "r170-0001" to the host name(lower case) of the first REGIUS 190 (#1) which will be controlled by the JM.
23. Press TAB key of the keyboard 3 times.
 The next line will change to the text input mode.
24. Input the host name of the REGIUS 190 (#2) which will be controlled by the JM.
25. Input the host name of REGIUS 170 (#1), and press the TAB key three times.
 <Important>To connect more REGIUS 190/170s, input the host name of all REGIUS 190/170s which will be controlled by the JM, and input "2" in each "r_stat".
26. After completing the input, click [Reload].
27. Check that all input data is correct, and click [Close].
 "r_version" screen will close, and switch to "PostgreSQL access" tool.

Setting the Relations

Set the relations between the CS-3(s) and REGIUS 190/170(s). In the "n to m connection", setting the relations between the CS-3 and REGIUS 190/170 will enable a linked-operation as to the power control, error information between the CS-3 and corresponding REGIUS 190/170.

1. Double-click [relations].

"relations" screen will be shown.

c_name	r_name	alert
CS1-0001	r170-0001	1

2. Input the host name (upper case) of the CS-3 in "c_name", and input the host name of the REGIUS 190/170 to which the relations for power control is assigned in "r_name".

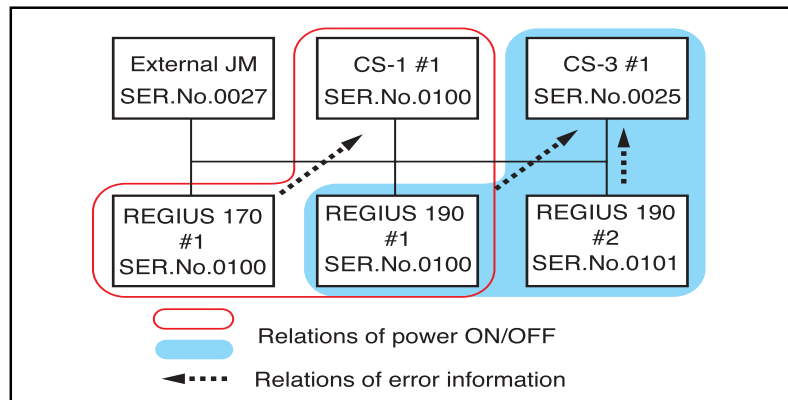
3. Input in "alert" a number which defines the handling method of the error information between the CS-3 and the REGIUS 190/170.

Input "1" to enable the CS-3 to receive an error information from the REGIUS 190/170, "0" to disable the receipt.

4. Repeat the step 2 and 3 to set as many relations of CS-3/CS-1 and REGIUS 190/170 as required.

There is no restriction about the relation. You can set relation between one REGIUS 190/170 and several CS-3s, or several REGIUS 190/170s and one CS-3 to the contrary.

For example, relations as to the power control and error information set as follows are also available.



- CS-1 #1 --- REGIUS 170 #1 : Power control ON, error information ON
- CS-1 #1 --- REGIUS 190 #1 : Power control ON, error information OFF
- CS-3 #1 --- REGIUS 190 #1 : Power control ON, error information ON
- CS-3 #1 --- REGIUS 190 #2 : Power control ON, error information ON

The "relations" screen for the above case shall look like following.

relations		
Sort field		Filter conditions
c_name	r_name	alert
CS1-0025	r170-0100	1
CS1-0025	r170-0101	0
CS1-0026	r170-0100	1
CS1-0026	R170-0102	1
	*	*

5. Press [Reload] after completing the input.
6. Check that all input data is correct, and click [Close].
"relations" screen closes, and switches to "PostgreSQL access" tool.

Set Up of the barcode Registration

In this paragraph, how to set up the barcode registration method to "barcode Registration" is described. At the factory, it is set to "Afterward Register"-(1), therefore it is essential to change the setting when using "barcode registration".

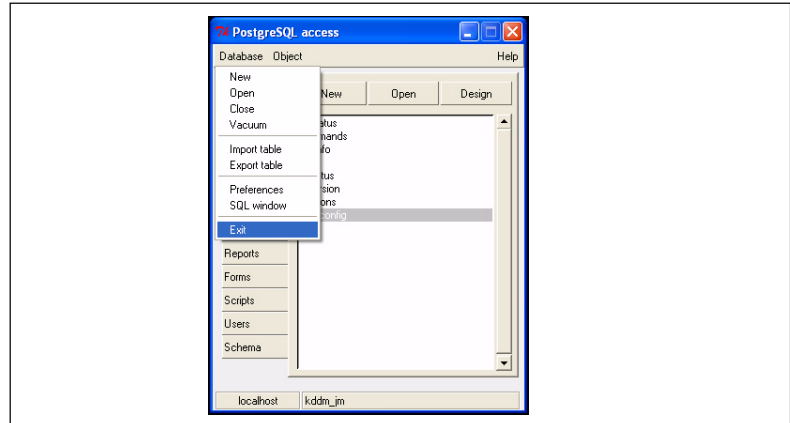
<Important>Always set it to "barcode Registration (0)" for "n to m connection. The setting made here must identical to that set in "Barcode Registered Method" on "JOBM INFO" screen.

1. Double-click [sys_config] of "PostgreSQL access" tool.
"sys_config" screen will be shown.

sys_config		
Sort field		Filter conditions
reg_type	n_timeout	i_timeout
1	*	*

2. Input "0" in "reg_type".
3. Click [Reload] --> [Exit].
"sys_config" screen closes, and switches to "PostgreSQL access" tool.

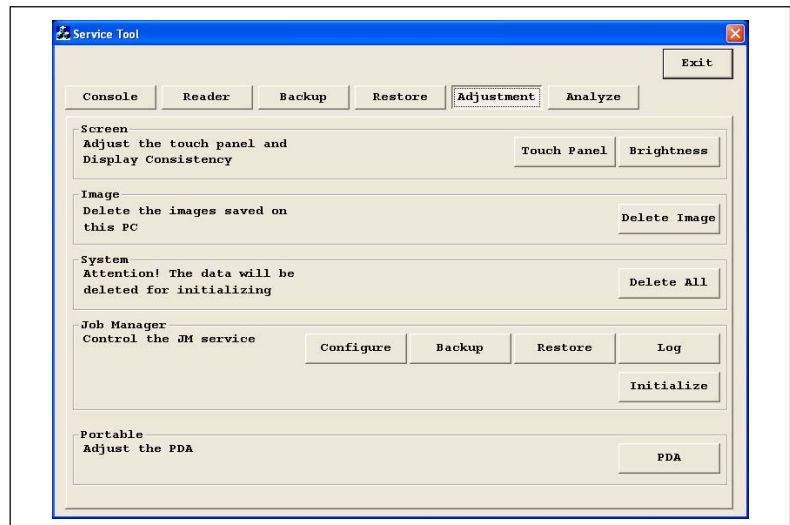
4. Click "Database" menu on "PostgreSQL access" screen, and select [Exit].



"PostgreSQL access" tool will close, and switches to "Service Tool" screen(Adjustment).

Back Up of JM Information After completing the set up of JM data base, back up the settings in a floppy disk.

1. Insert a floppy disk in the floppy disk drive of the CS-3.
2. Click [Backup] of "Job Manager".



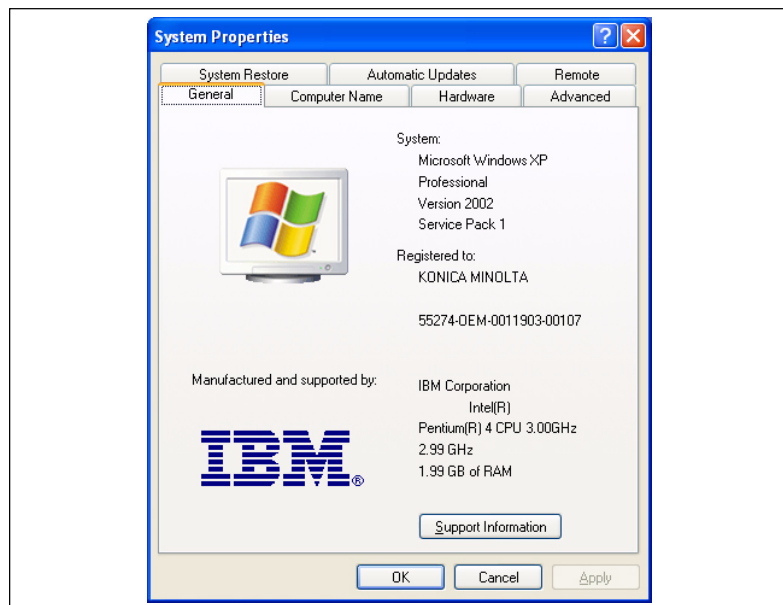
The back up sequence starts.

- The backed up data will be stored in the floppy disk under the file name of "jbackup_jm".

3. Remove the floppy disk for back up from the floppy disk drive.

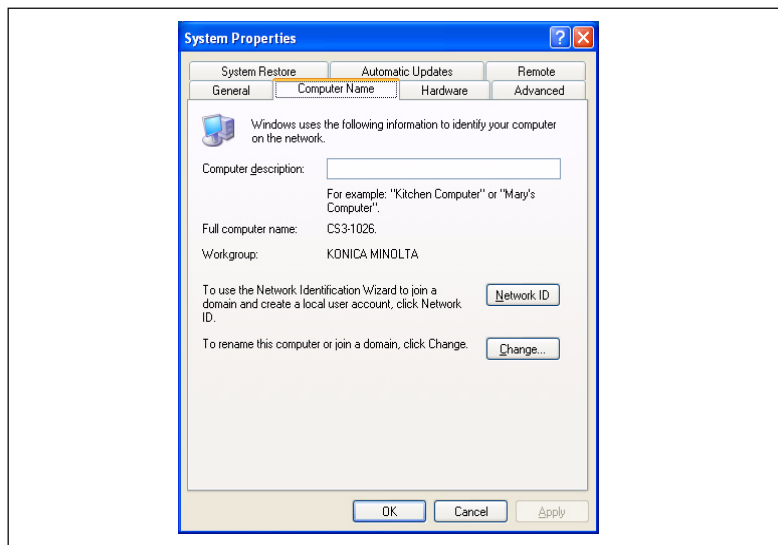
Setting the PC Name To enable the Windows to recognize the External JM, set the Computer name of the JM.

1. Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the "REGIUS Service Screen".
3. Click [Windows Desktop].
REGIUS Service Screen will close, and Windows desk top will be shown.
4. Select [Control Panel] from [Start] menu.
"Control Panel" will be shown.
5. Double-click the "System" of the "Performance & Maintenance".
"Properties" dialogue of system will be shown.



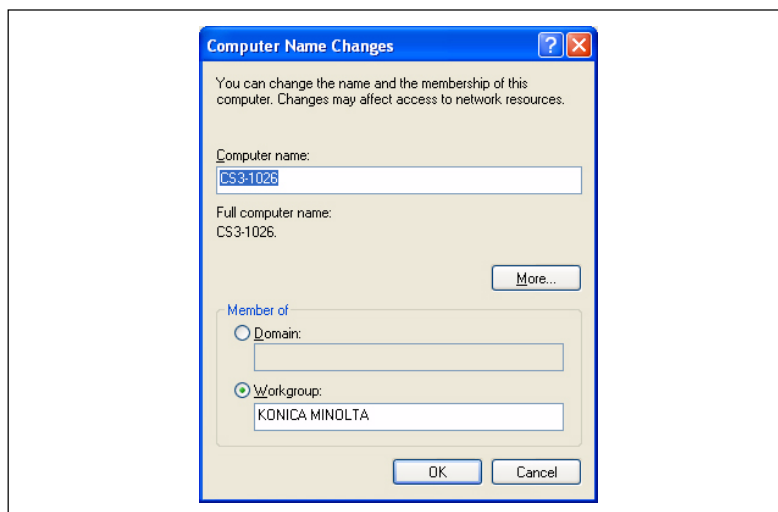
6. Click [Computer Name] tab.

"Computer Name" dialogue will be shown.



7. Click [Change] tab.

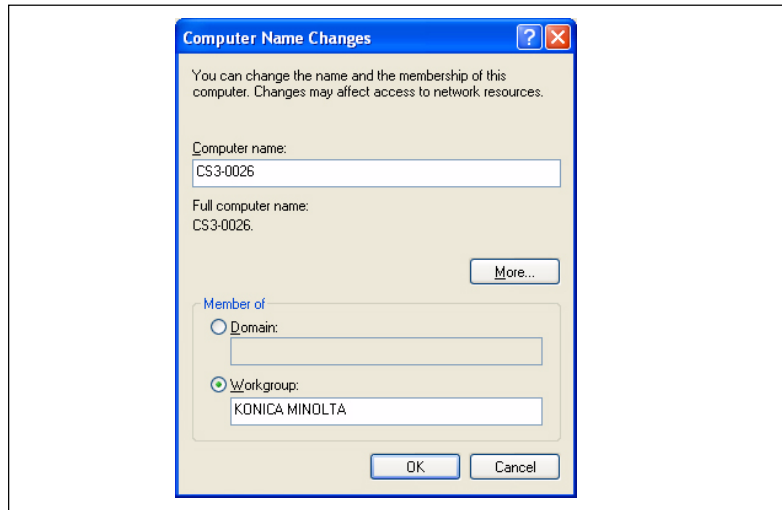
"Computer Name Changes" dialogue will be shown.



8. Input in the [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then input "KONICA MINOLTA" in [Work group] of [Member of].

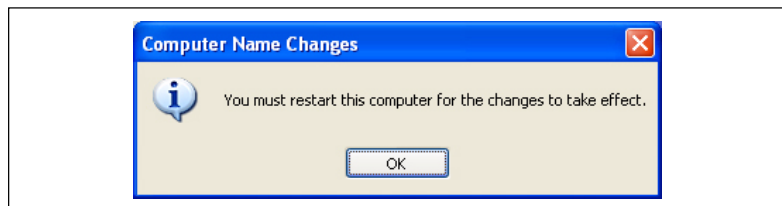
<Important>Always use upper cases to input.

ex) Setting of the CS-3(serial No. : 0026) in the system example of the preceding page.



9. Click [OK].

Dialogue prompting a restart will be shown.



10. Click [OK].
Switches to the property dialogue of the system.
11. Click [OK].
Dialogue inquiring an immediate restart will be shown.
12. Click [Yes].
The Computer will restart, and the revised setting will become effective.

Terminating the System

1. Wait for the initial screen of the CS-1/CS-3 application to be shown.
2. Click [KONICA MINOLTA].
System menu will be shown.
3. Click [Shutdown].
Termination sequence of CS-1/CS-3 application will be initiated. Upon closure of the CS-1/CS-3 application, the power of JM will be turned off.
4. Disconnect the CS-3 operation unit from the JM.
Implementing the above procedures completes the set up of the CS-3 that has an activated JM. Then the set up of the CS-3 that has disabled JM will be followed. The external JM that has been set up needs the CS-3 operation unit any more in the normal operation.

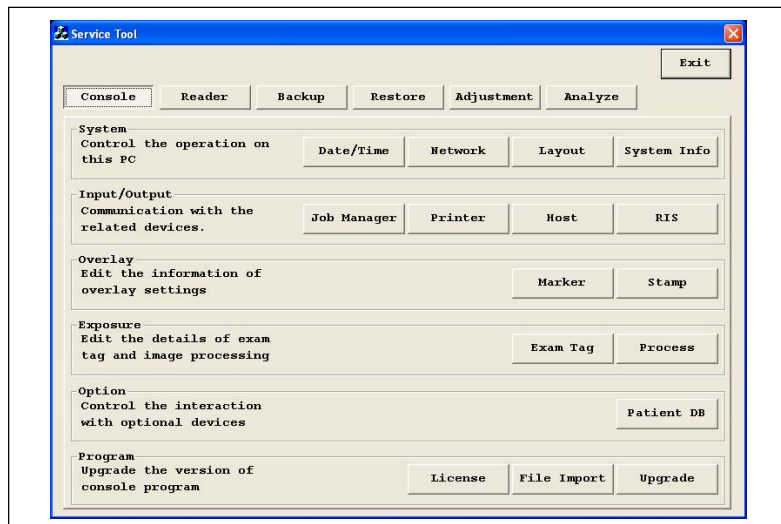
3.3.3 Set Up of the CS-3

Set the CS-3 that has a disabled internal JM. Set all CS-3s that are connected to the network.

When a dedicated reader(REGIUS 350) is also connected to the CS-3, move the unit to the installation site, then carry out the set up by referring to 5.2 "Setting the System Properties", 5-5.

Setting the IP Address

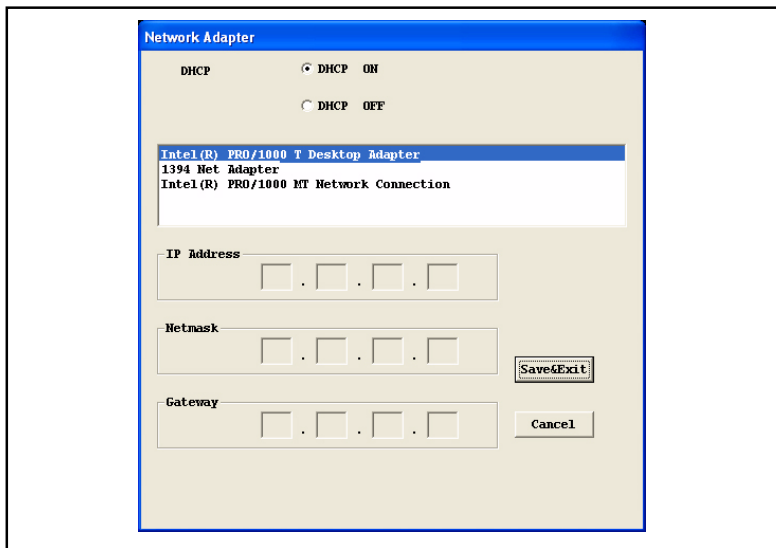
1. Press the power button of the CS-3 Control Unit and CS-3 Operation unit to start.
Wait for the "Exam Search" screen to be shown.
2. Operate the mouse to show the "REGIUS Service Screen".
Refer to the "1.6.1 Service Tool Screens", 1-22 for the procedures to open the "REGIUS Service" screen.
3. Click [Service Tool].
"Password Input" screen will be shown.
4. Input the password(5678) for the service tool, and click [OK].
"Service Tool" screen(Console) will be shown.



5. Click [Network] of "System".

"Network Adapter" screen will be shown.

- A device name of the network adapter, IP address, subnet mask, default gateway address currently assigned to the PC will be shown on the network address screen.
- In the case that an optional Ethernet card is installed, there shows 2 device names of network adapter. "Intel (R) PRO/1000 MT Network Connection" is the original device name of the Ethernet adapter installed in the CS-3, while "Intel (R) PRO/1000 T Desktop Adapter" is the device name of the additionally installed Ethernet board.



6. Click the device name "Intel (R) PRO/1000 MT Network Connection" to select.

7. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.

8. When an optional Ethernet board is installed, click the device name in the lower level of the device name list, then click [DHCP OFF] button to select, input the IP address, subnet mask of the Ethernet board.

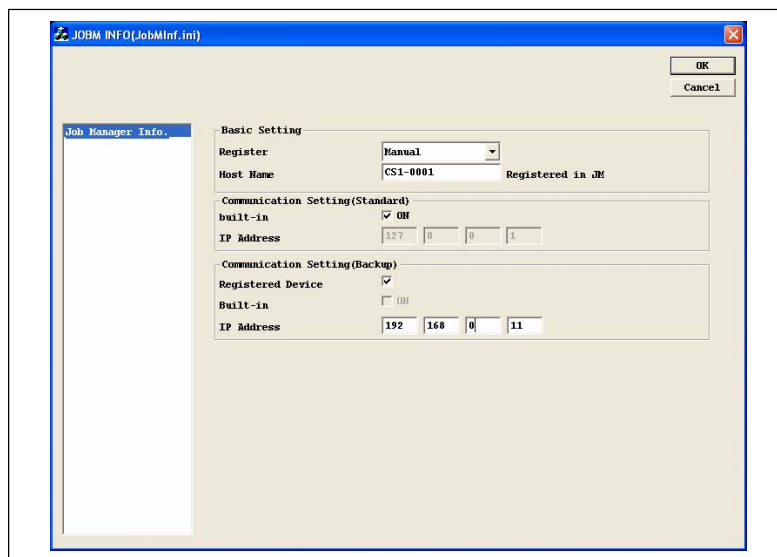
9. Click [Save & Exit], then click [Yes] of the confirmation dialogue. The screen will switch back to the Service Tool(console).

Setting the JM Information

This is the setting which controls the CS-3 that has no activated JM to be able to interface to the JM. It is not the functional setting of the JM itself.

1. Click [Job Manager] of [Input/Output].

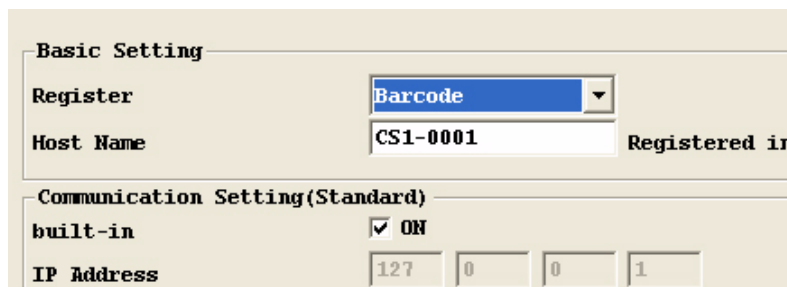
"JOBM INFO" screen will be shown.



2. Click [Barcode] of [Register].

<Important>When the CS-3 is in "n to m connection", always select "Barcode Registration"

3. Input the host name(CS1-**** : **** indicates the serial number) of the CS-3 in [Host Name].



<Important>Alw

4. Click [ON] of "Built-in" to put out the check mark.
5. Input the IP address of the external JM in "IP Address" of "Communication Setting".

When no back up JM is to be set up, setting of "JOBM INFO" screen is completed herewith.

6. When a back up JM is to be used, put a check mark on "Registered Device" of "Communication Setting (Secondary)" window, and make necessary setting as below.

- Input the IP address of the external back up JM or CS-3 that is to be used as a back up JM in "IP Address (Secondary)".

<Important>This setting should be implemented on all CS-3(s) which will not use the internal JM as a back up JM. For the setting of the CS-3 that uses the internal JM as a back up JM, refer to ["3.3.5 Setting the Back Up JM \(CS-3\)"](#).

7. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool(console).

Setting the Device Name Sets the number of REGIUS 190s to be connected to the CS-3 and the device name of each REGIUS 190. Set the same on all CS-3s.

1. Click [System Info] of [System].
"SYSTEM INFO" screen will be shown.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

Institution Info.
Institution Name REGIUS CLINIC (Max. 60 Char.)
Institution Address (Max. 60 Char.)
Department Name Radiology (Max. 60 Char.)

2. Select "System (Reader)" in the set up list shown on the left of the screen.

SYSTEM INFO

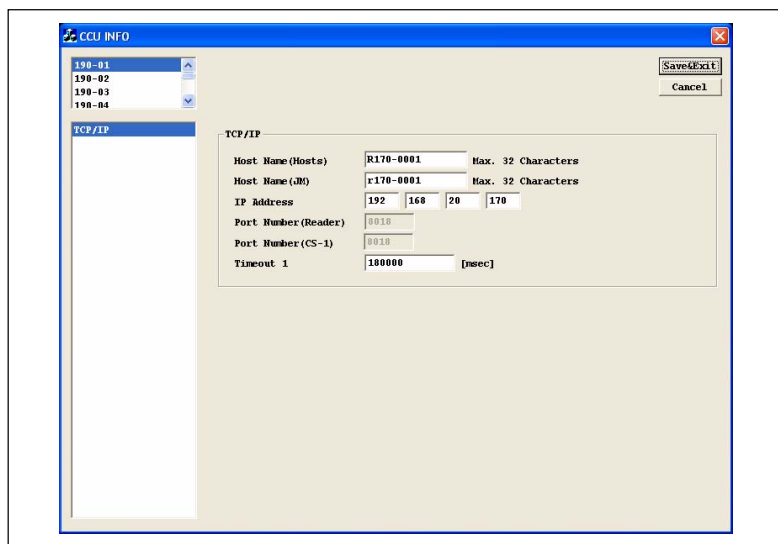
Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

REGIUS 170
Model Name 170 (Max. 10 char.)
Reader 1 ☒ Registered Disp. Name 190-01 (Max. 10 char.)
Reader 2 ☒ Registered Disp. Name 190-02 (Max. 10 char.)
Reader 3 ☒ Registered Disp. Name 190-03 (Max. 10 char.)
Reader 4 ☒ Registered Disp. Name 190-04 (Max. 10 char.)
Reader 5 ☒ Registered Disp. Name 190-05 (Max. 10 char.)
Reader 6 ☒ Registered Disp. Name 190-06 (Max. 10 char.)
Reader 7 ☒ Registered Disp. Name 190-07 (Max. 10 char.)
Reader 8 ☒ Registered Disp. Name 190-08 (Max. 10 char.)
Reader 9 ☒ Registered Disp. Name 190-09 (Max. 10 char.)
Reader 10 ☒ Registered Disp. Name 190-10 (Max. 10 char.)
Reader 11 ☒ Registered Disp. Name 190-11 (Max. 10 char.)
Reader 12 ☒ Registered Disp. Name 190-12 (Max. 10 char.)
Reader 13 ☒ Registered Disp. Name 190-13 (Max. 10 char.)
Reader 14 ☒ Registered Disp. Name 190-14 (Max. 10 char.)
Reader 15 ☒ Registered Disp. Name 190-15 (Max. 10 char.)
Reader 16 ☒ Registered Disp. Name 190-16 (Max. 10 char.)

3. Put check marks on [Registered] of [REGIUS 170] as many as the number of REGIUS 190s to be connected.
4. Click "Model Name" box, and input the group name of the REGIUS 190(s).
This name is a group name generally applied to the REGIUS 190(s), and will be displayed on place where the modality is selected on the screens of CS-1/ CS-3 application.

5. Click "Disp. Model" of readers for which [Registered] is checked, and input the name of each REGIUS 190.
This name will be shown on the "System Status" screen of the CS-1/CS-3 application. Put the name which can be easily identified by the user. (for example, a name of the X-ray room where the REGIUS 190 is installed; X-ray room #1, X-ray room #2)
6. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool(console).
7. Click [Reader].
Service Tool screen(Reader) will be shown.
8. Click [Reader] of [System].
"CCU INFO" screen will be shown.
Display names of the REGIUS 190, which were input in the step.5 will be shown in the reader list on the upper left.



9. Select the device name of the first REGIUS 190 from the reader list shown on the upper left of the screen.
10. Input the host name(upper case) assigned to the first REGIUS 190 in [Host Name] of "TCP/IP".
11. Input the host name(lower case) assigned to the first REGIUS 190 in [Host Name(JM)] of "TCP/IP".
<Important>Always use lower cases to input.

- 12.** Input the IP address assigned to the first REGIUS 190 in [IP Address] of "TCP/IP".

ex) Set up of the REGIUS 190 #1(serial No. : 0100) of the system example in the preceeding page.

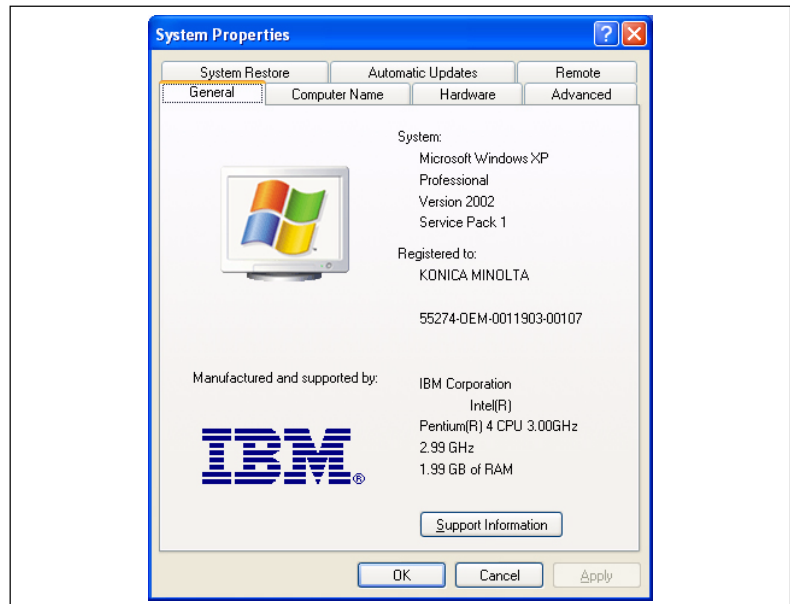
TCP/IP	
Host Name(Hosts)	R170-0100 Max. 32 Characters
Host Name(JM)	r170-0100 Max. 32 Characters
IP Address	192 168 20 175
Port Number(Reader)	8018
Port Number(CS-1)	8018
Timeout 1	180000 [msec]

- 13.** Select the device name of the second REGIUS 190 from the reader list shown on the upper left of the screen.
- 14.** Repeat the step 9 through 12, input the "Host Name", "Host Name (Local)", and "IP Address" for all REGIUS 190s.
- 15.** Click [Save & Exit], then click [Yes] of the confirmation dialogue. The screen will switch back to the Service Tool(reader).

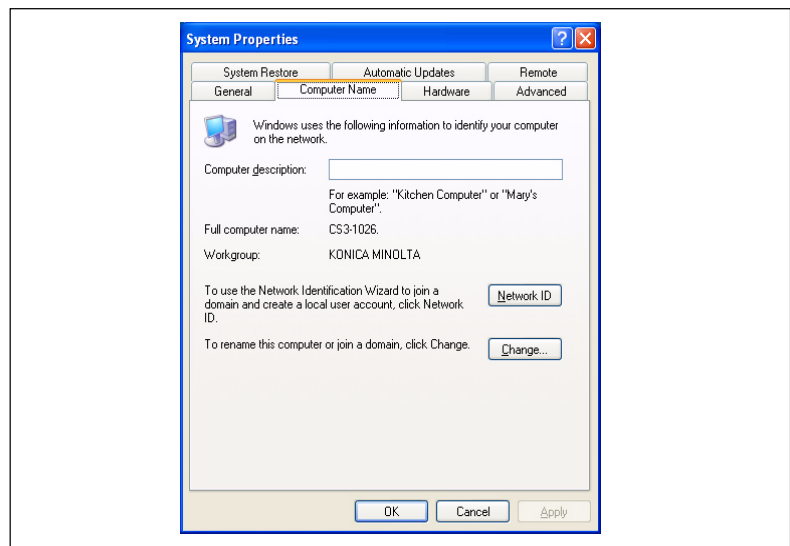
Setting the PC Name To enable the Windows to recognize the CS-3, set the PC name of the CS-3.

- 1.** Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
- 2.** Click [Yes].
Switches to the "REGIUS Service Screen".
- 3.** Click [Return to Windows Desk Top].
REGIUS Service Screen will close, and Windows desk top will be shown.
- 4.** Select the "Control Panel" of the "Start" menu.
Control panel will be shown.

5. Double-click the "System" of the "Control Panel".
 "Properties" dialogue of system will be shown.

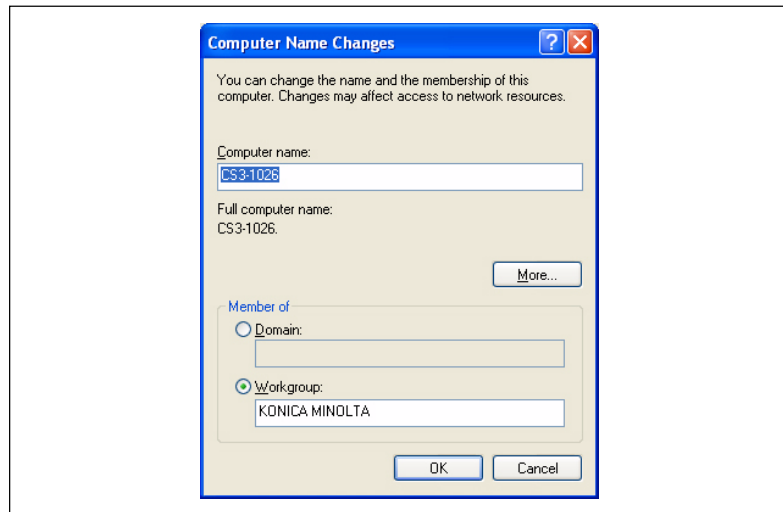


6. Click [Computer Name] tab.
 "Computer Name" dialogue will be shown.



7. Click [Change] tab.

"Computer Name Changes" dialogue will be shown.

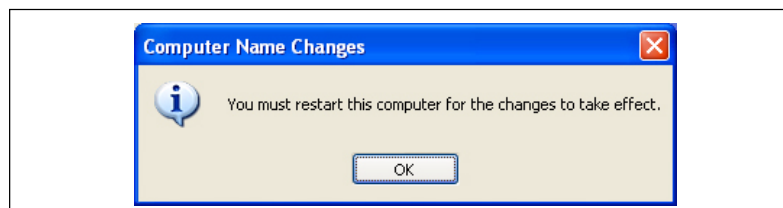


8. Input in the [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then input "KONICA MINOLTA" in [Work group] of [Member of].

<Important>Always use upper cases to input.

9. Click [OK].

Dialogue prompting a restart will be shown.



10. Click [OK].

Switches to the property dialogue of the system.

11. Click [OK].

Dialogue inquiring an immediate restart will be shown.

12. Click [Yes].

The Computer will restart, and the revised setting will become effective.

<Important>With the CS-3 in the "n to m connection", an error message will be shown on the "REGIUS Service" screen after completing the restart. This indicate that the CS-3 is unable to communicate with the JM, and sends an error message. However, this is not an abnormal status at this moment.

Terminating the System

1. Click [OK] of the error message.
2. Click [Shutdown] of the "REGIUS Service Screen".

"REGIUS Service" screen will close, followed by termination sequence of the Windows, and the power of CS-3 will be turned off.

Implementing the above procedures will complete the set up of one CS-3.

Carry out the set up of all CS-3s by repeating the procedures from ["Set Up of the CS-3"](#), 3-86.

When installing a back up JM in the system, carry out the procedure in "3.3.4 Setting the Back Up JM (External)", 3-96 or "3.3.5 Setting the Back Up JM (CS-3)", 3-108 in the following pages.

3.3.4 Setting the Back Up JM (External)

To enable the Following is the procedure for installing the additional external JM for the back up of the system. The setting of this external back up JM is same as what is described in "3.3.2 Set Up of External JM", 3-71 except for those listed below.

- IP address
- Host name (This PC) of "Basic Setting"
- PC name

Same as the case with the external JM, temporarily connect Operation Unit of other CS-3s, and complete the setting beforehand.

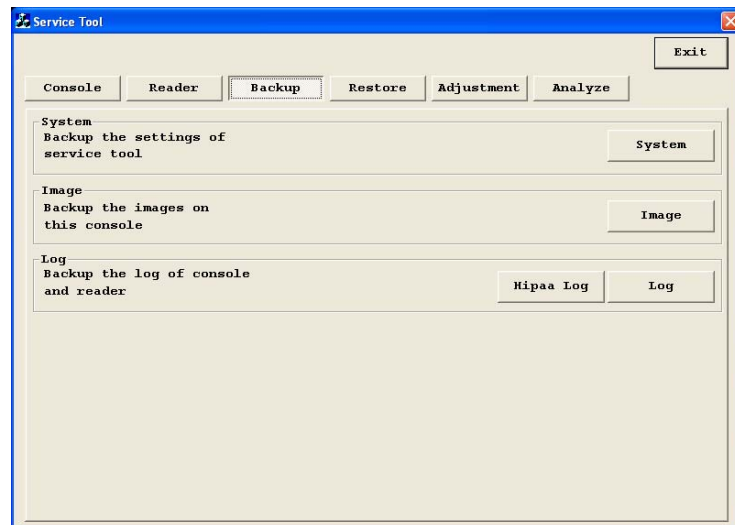
In this procedure, the serial number of the external back up JM is assumed as "0028", and the IP address as "192.168.20.181".

- When one of the CS-3s in the system is set up as a back up JM, implement the procedure in "3.3.5 Setting the Back Up JM (CS-3)", 3-108.

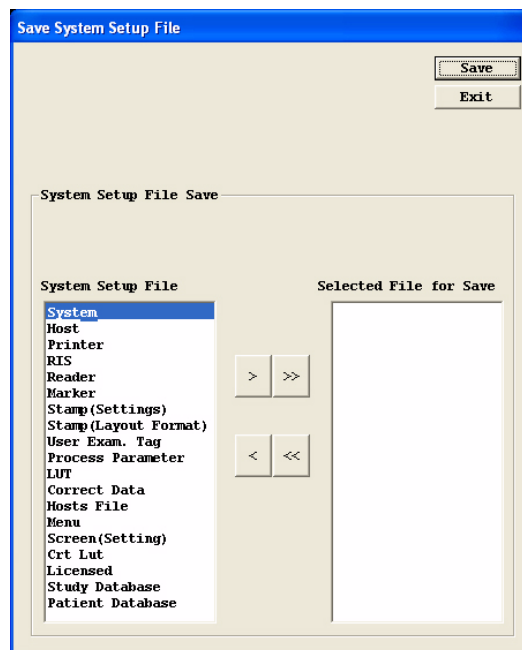
Copying the System Setting

Using the "Save/Restore" function of the Service Tool, set up the external JM for back up in a way similar to that of external JM.

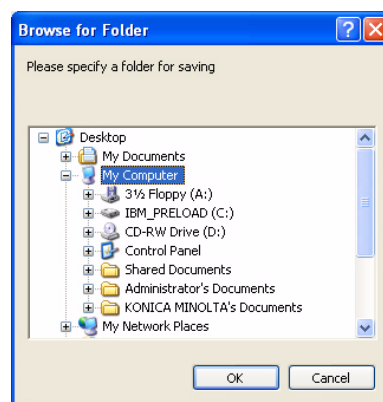
1. Start up the external JM that has been already set up, and start the Service Tool from the "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" for the procedure to open the "REGIUS Service" screen.
2. Click "Back Up" of the "Service Tool" screen (Console).
"Service Tool" screen (Back Up) will be shown.



3. Click [System] of "System".
"System Setup File Save" screen will be shown.

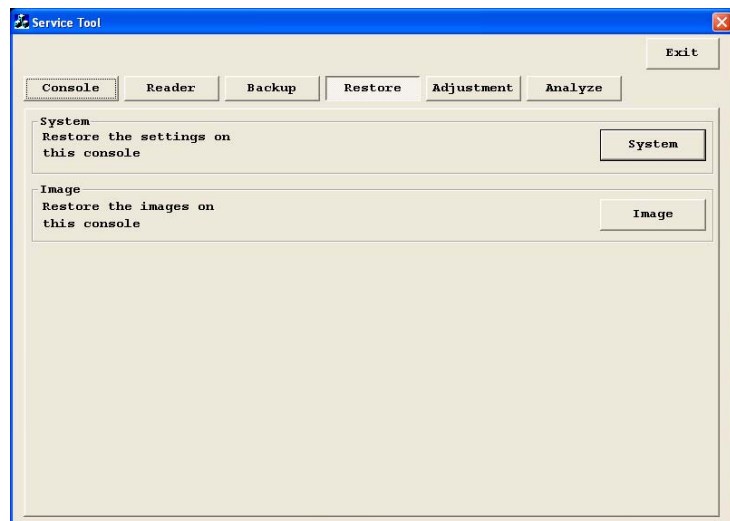


4. Select "System" of "System Setup File", and click [>].
"System" will be displayed in "Selected File for Save".
5. Insert a floppy disk (for save) into the floppy disk drive.
6. Click [Save].
"Browse for Folder" screen will be shown.

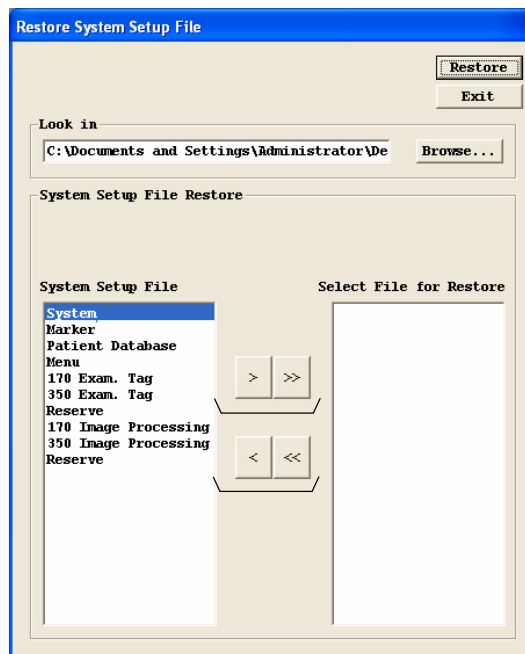


7. Check that "3.5in FD (A:)" is selected. Then click [OK].
Confirmation dialogue will be shown.

8. Click [Yes]. "Saving...." dialogue will be shown.
9. After saving is successfully completed, click [Exit] --> [Yes].
The screen switches to "Service Tool" screen (back up).
10. Remove the floppy disk from the floppy disk drive, and shut down the system of external JM.
11. Start up the external back up JM, and start "Service Tool" from the "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to start the "REGIUS Service" screen.
12. Click [Restore] of the "Service Tool" screen (Console).
"Service Tool" screen (Restore) will be shown.



- 13.** Click [System] of "System".
 "System Setup File Restore" screen will be shown.

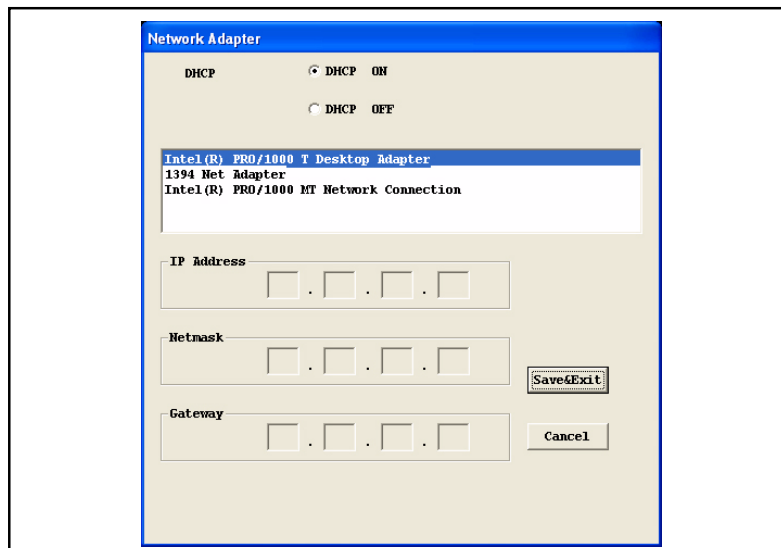


- 14.** Insert a floppy disk in which the data is saved in the step.8 into the floppy disk drive.
- 15.** Select the "System" in the "System Setup File" column, and click [>].
 "System" will be shown in the "Selected File for Restore" column.
- 16.** Click [Restore].
 Confirmation dialogue will be shown.
- 17.** Click [Yes]. "Saving...." dialogue will be shown.
- 18.** After saving is successfully completed, click [Exit] --> [Yes].
 The screen switches to "Service Tool" screen (Restore).
- 19.** Remove the floppy disk from the floppy disk drive.

Setting the IP Address and Host Name

Because the network setting becomes identical to each other when the system set up of the external JM is restored on the external back up JM, change the network setting of the external back up JM according to the procedure below.

1. Click [Console] of the "Service Tool" screen (Restore).
"Service Tool" screen (Console) will be shown.
2. Click [Network] of "System".
"Network Adaptor" screen will be shown.
 - On the "Network Adaptor" screen, IP address, subnet mask, and default gateway which have been already set up on the external JM are displayed.



3. Click the device name "Intel (R) PRO/1000 MT Network Connection".
4. Check that [DHCP OFF} button is selected, and change the right end box of "IP Address" field to "181".
5. Click [Save & Exit]. then click [Yes] of the confirmation dialogue.
The screen switches to "Service Tool" screen (Console).
6. Click [Job Manager] of "Input/Output".
"JOBMINFO" screen will be displayed.

7. Input the host name (CS-3-****.**** means serial number) of the external back up JM in "Host Name".
Ex) Example of the serial Number 0028.

Register: Manual

Host Name: CS1-0001 Registered

Communication Setting(Standard)

built-in: ☒ ON

IP Address: 127 0 0 1

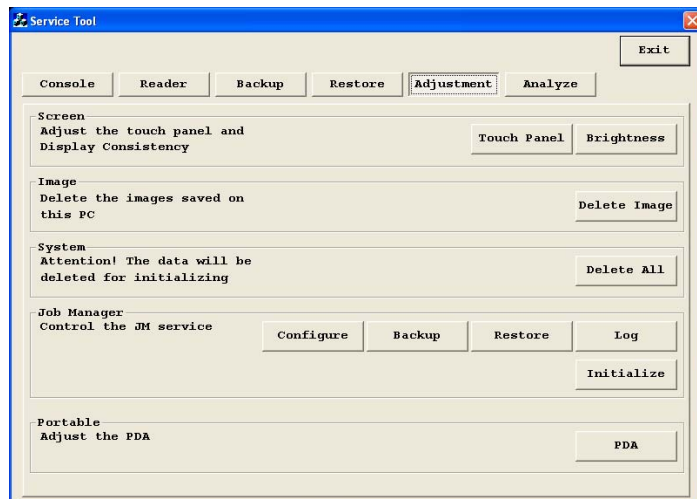
Communication Setting(Backup)

Registered Device: ☒

8. Click [Save & Exit]. then click [Yes] of the confirmation dialogue.
The screen switches to "Service Tool" screen (Console).

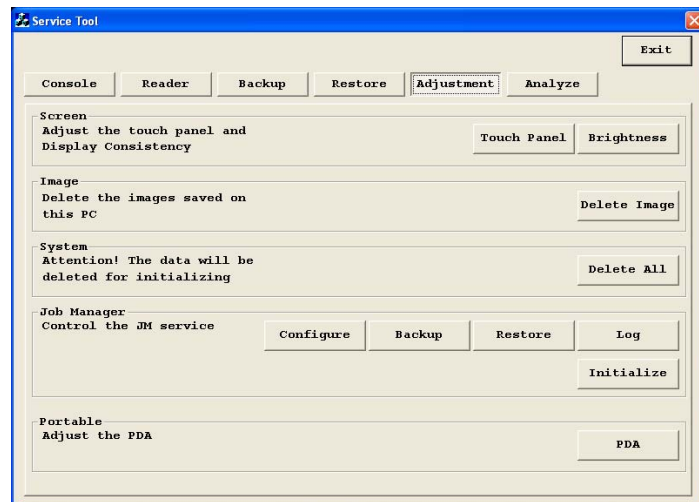
Setting the Database of Back Up JM Set on the back up JM the same database as set in "Set Up of JM Data Base", 3-39.

1. Click "Adjustment" of the "Service Tool" screen.



2. Insert a floppy disk in which the data is backed up according to "Back Up of JM Information", 3-45 into the floppy disk drive of the CS-3 Control Unit.

3. Click "Restore" of "Job Manager".



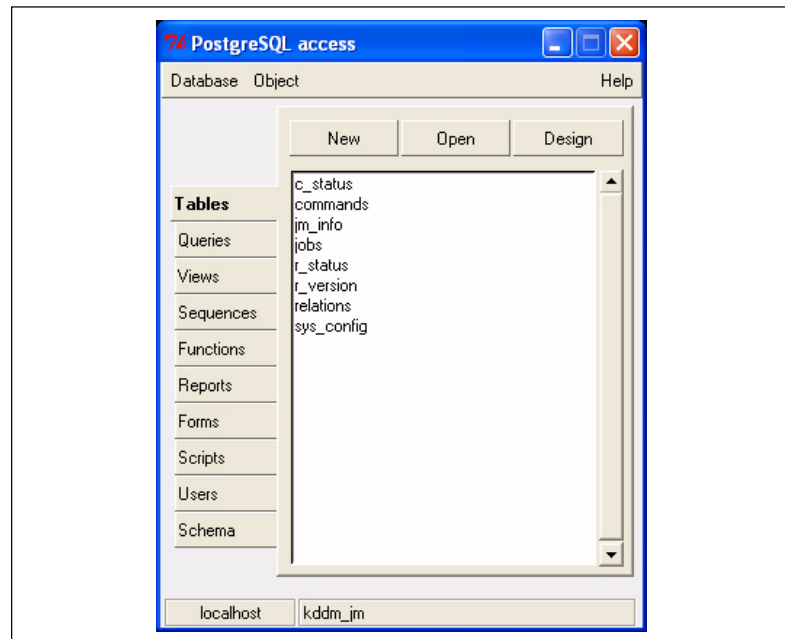
Restoration starts.

- This operation completes the duplication of the CS-3 #1 contents onto the JM database incorporated in the CS-3.

4. Remove the floppy disk for back up from the floppy disk drive.

5. Click "Configure" of "Job Manager".

PostgreSQL access tool will start.



6. Double-click [c-status] of PostgreSQL access tool.
 "c_status" screen will be displayed.

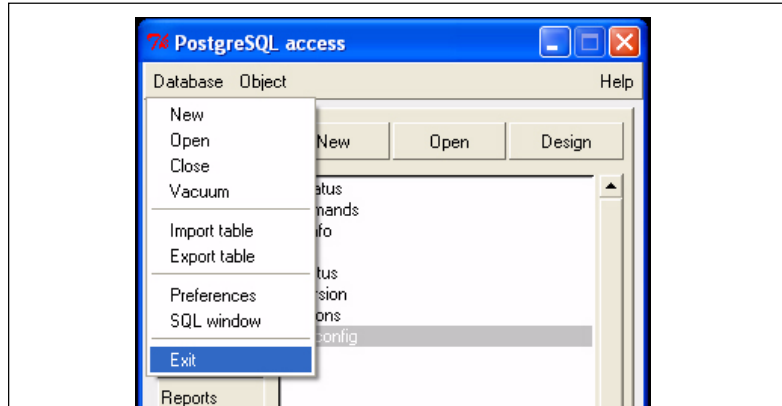
c_name	img_ack	c_stat
CS1-0025	x	2
CS1-0026	x	2
x	x	

7. Check that the host name of CS-3 in "c_name" is correct, and "c_stat" value for each CS-3 is set to "2".
- If "c_stat" is not set to "2", click the number and input "2".
8. Click [Exit] after having verified the setting is correct.
9. Double-click [r-status] of PostgreSQL access tool.
 "r_status" screen will be displayed.

r_name	r_type	r_stat	ewec_jid	err_code	door	casin	casout	lamp	mainte_c
r170-0100		2	0						
r170-0101		2	0						
x	x	x	x	x	x	x	x	x	x

10. Check that the host name of REGIUS 190 in "r_name" is correct, and "r_stat" value for each REGIUS 190 is set to "2".
- If "r_stat" is not set to "2", click the number and input "2".
11. Click [Exit] after having verified the setting is correct.

12. Click "Database" menu of "PostgreSQL access" window, and select "Exit".

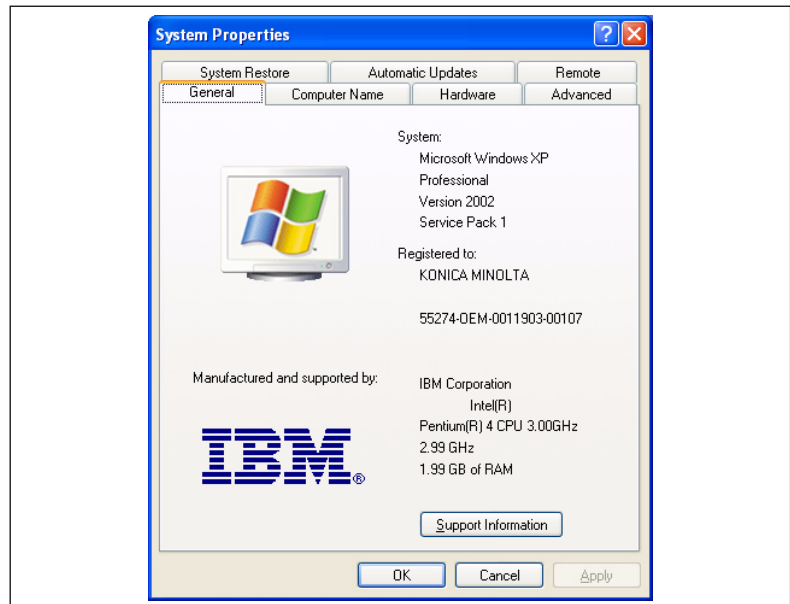


"PostSQL access" screen closes, and switches to "Service Tool" screen.

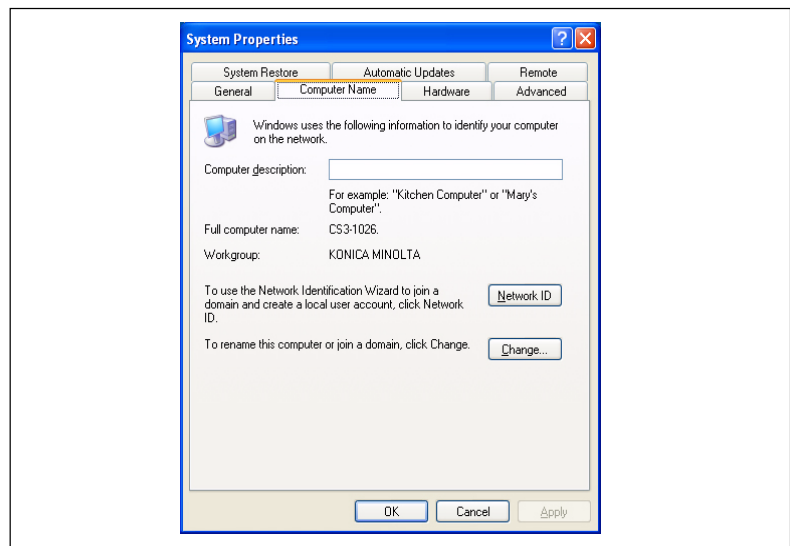
Setting the PC Name To enable the Windows to recognize the external back up JM, set the PC name.

1. Click [Exit] on the "Service Tool" screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the "REGIUS Service Screen".
3. Click [Windows Desktop].
REGIUS Service Screen will close, and Windows desk top will be shown.
4. Select [Conrol Panel] from [Start] menu.
"Control Panel" will be shown.

5. Double-click the "System" of the "Performance & Maintenance".
"Properties" dialogue of system will be shown.

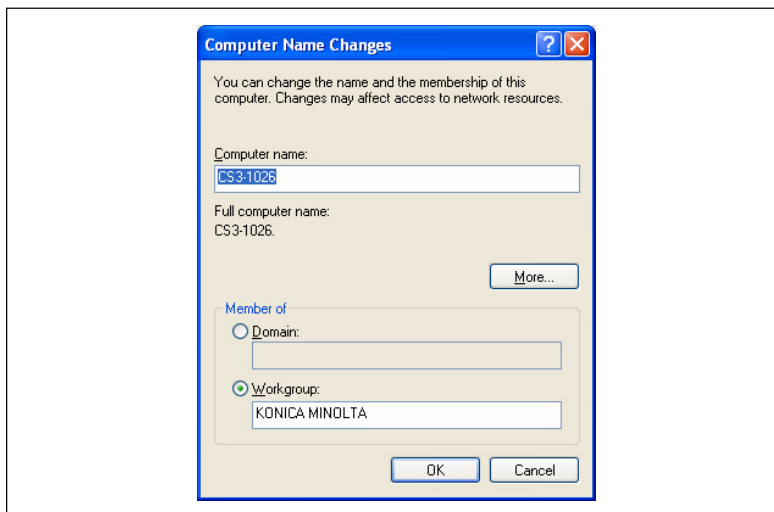


6. Click [Computer Name] tab.
"Computer Name" dialogue will be shown.



7. Click [Change] tab.

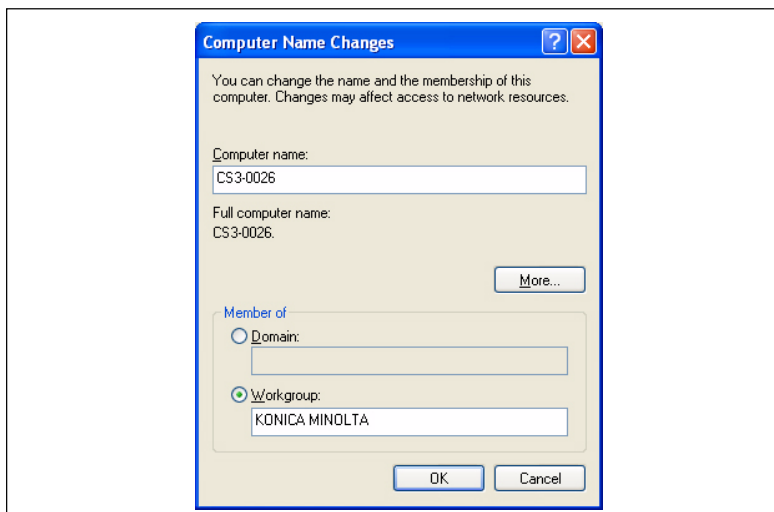
"Computer Name Changes" dialogue will be shown.



8. Input in the [Computer name] the host name (host name set in [Host Name] of JOBM INFO screen) assigned to the CS-3. Then input "KONICA MINOLTA" in [Work group] of [Member of].

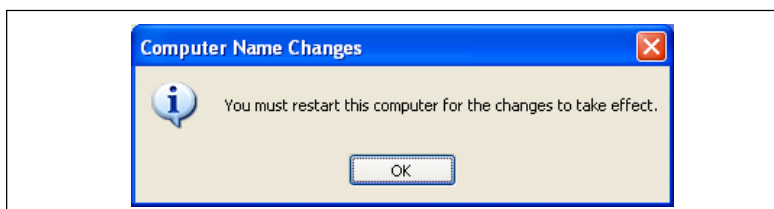
<Important>Always use upper cases to input.

ex) Setting of the CS-3(serial No. : 0026) in the system example of the preceding page.



9. Click [OK].

Dialogue prompting a restart will be shown.



10. Click [OK].
Switches to the property dialogue of the system.
11. Click [OK].
Dialogue inquiring an immediate restart will be shown.
12. Click [Yes].
The Computer will restart, and the revised setting will become effective.

Terminating the System

1. Wait for the "Exam Search" screen of the CS-1/CS-3 application to be shown.
2. Click [KONICA MINOLTA].
"System" menu will be shown.
3. Click [Shut down]
Shut-down process of the CS-1/CS-3 application will be initiated.
As soon as the CS-1/CS-3 application shuts down, the power of external back up JM will be turned OFF.
4. Disconnect and remove the CS-3 Operation Unit.
Implementing the above procedures completes the set up of the external back up JM.
If an error occurs on the external JM during system operation, an error message will be shown on the routine screen, and the operation of JM can be switched to the one for back up manually.

3.3.5 Setting the Back Up JM (CS-3)

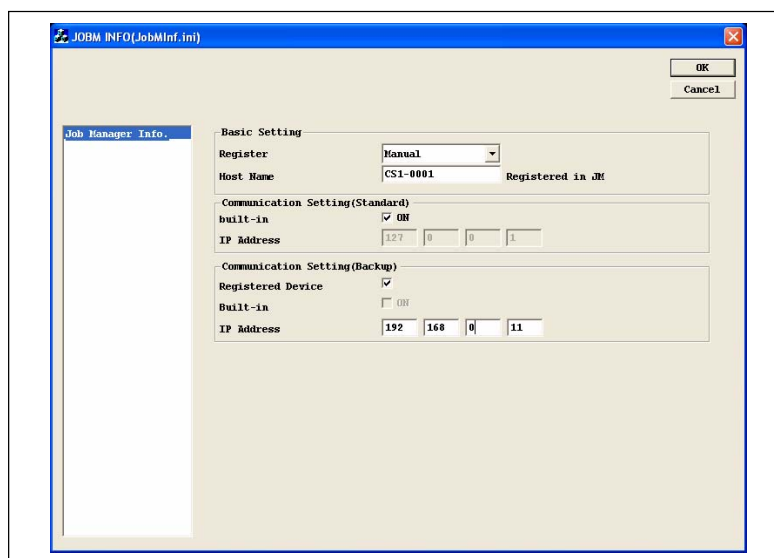
When installing a back up JM in the system, one of the CS-3s can be selected and set up as a back up JM.

In the following procedure, the CS-3 whose serial number is 0026 is selected as a back up JM.

1. Start up the CS-3 (serial number 0026) which has been already set up, and start "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3", 1-22 to display the "REGIUS Service" screen.

2. Click [Job Manager] of [Input/Output].

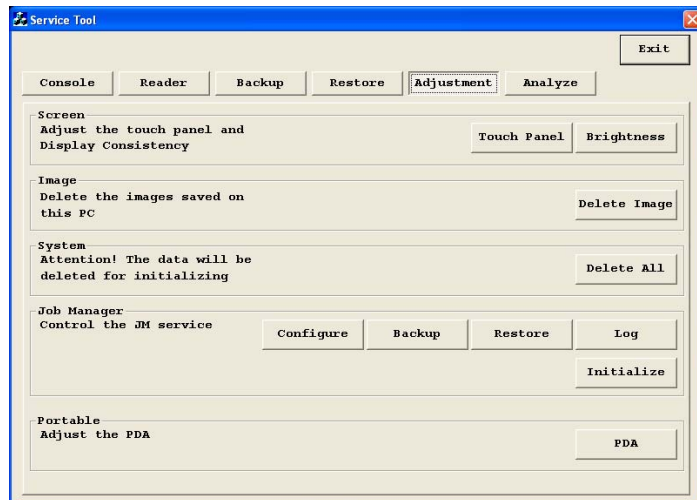
JOBM INFO screen will be shown.



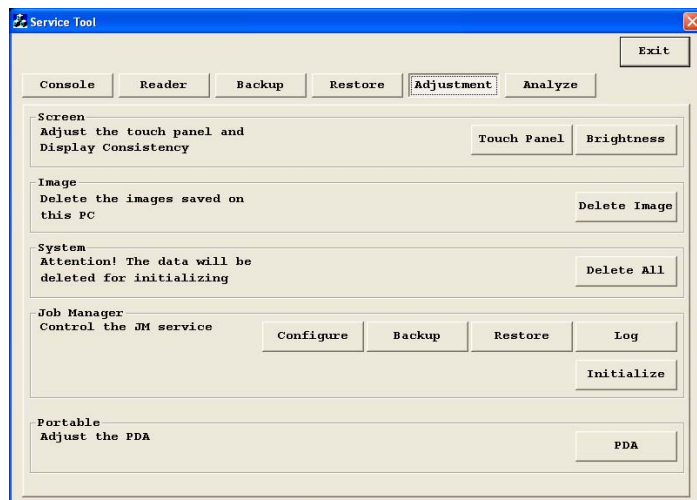
3. Put a check mark on "Registered Device" of "Communication Setting (Secondary)". Then carry out the setting as below.
 - Click "ON" of "Build-in" to enable it.
 - Input the host name (JM1-0002 fixed) of back up JM in "Host Name (Secondary)".
 - Input the IP address of the CS-3 itself in "IP Address (Secondary)".
4. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the "Service Tool" screen(console).

Setting the Database of Back Up JM Set on the back up JM the same database as set in "Set Up of JM Data Base", 3-39.

1. Click "Adjustment" of the "Service Tool" screen.



2. Insert a floppy disk in which the data is backed up according to "Back Up of JM Information", 3-45 into the floppy disk drive of the CS-3 Control Unit.
3. Click "Restore" of "Job Manager".

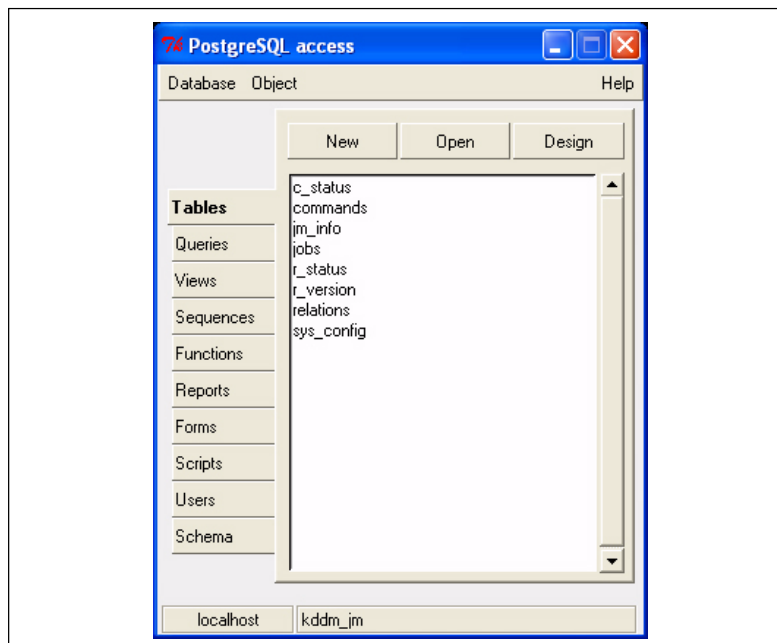


Restoration starts.

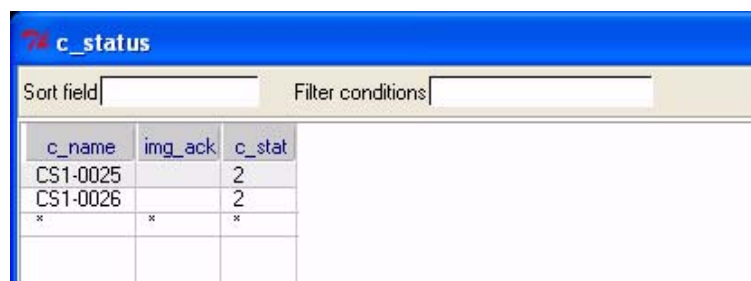
- This operation completes the duplication of the external JM database, and the database of the JM incorporated in the CS-3 becomes same as that of the external JM.

4. Remove the floppy disk for back up from the floppy disk drive.
5. Click "Configure" of "Job Manager".

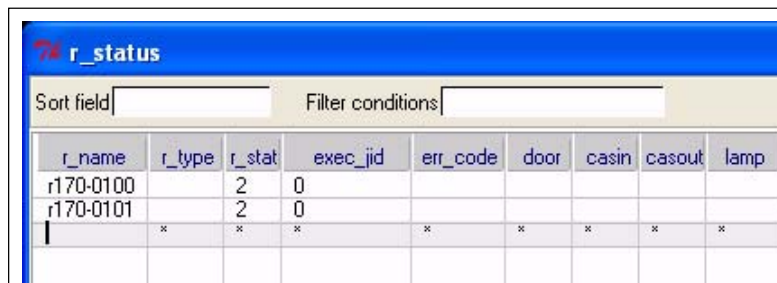
PostgreSQL access tool will start.



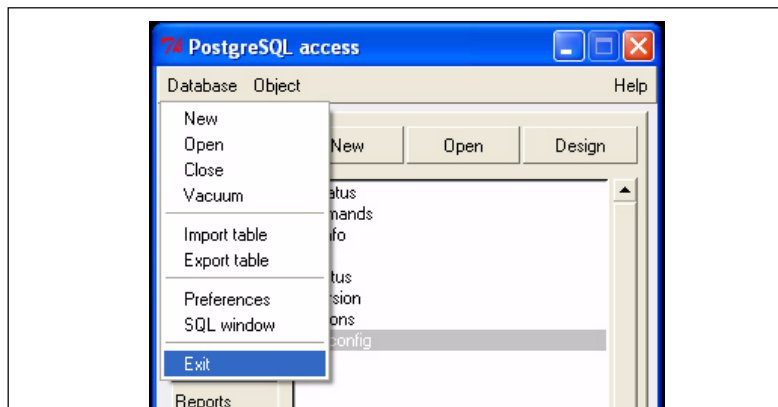
6. Double-click [c-status] of PostgreSQL access tool.
"c_status" screen will be displayed.



7. Check that the host name of CS-3 in "c_name" is correct, and "c_stat" value for each CS-3 is set to "2".
 - If "c_stat" is not set to "2", click the number and input "2".
8. Click [Exit] after having verified the setting is correct.
9. Double-click [r-status] of PostgreSQL access tool.
"r_status" screen will be displayed.



10. Check that the host name of REGIUS 190 in "r_name" is correct, and "r_stat" value for each REGIUS 190 is set to "2".
 - If "r_stat" is not set to "2", click the number and input "2".
11. Click [Exit] after having verified the setting is correct.
12. Click "Database" menu of "PostgreSQL access" window, and select "Exit".



Terminating the System

1. Click [Exit] of the "Service Tool" screen.
Confirmation dialogue will be shown.

2. Click [Yes].
Switches to the "REGIUS Service Screen".

3. Click [Shutdown].

Termination sequence of the CS-1/CS-3 application starts. Upon closure of the CS-1/CS-3 application, the power of CS-3 will be turned off.

Completing the above procedures will enable the CS-3 to operate as a back up JM.

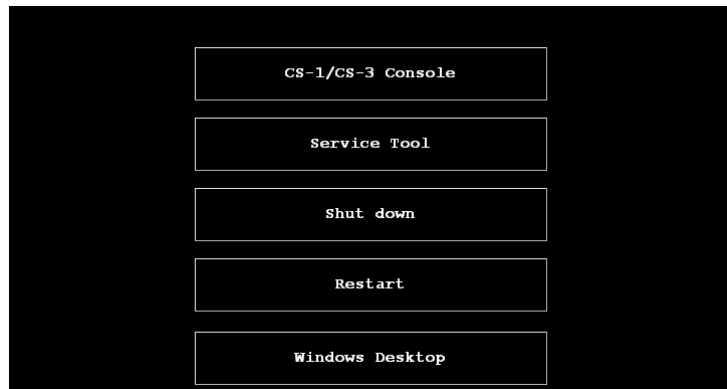
If an error occurs on the external JM during system operation, an error message will be shown on the routine screen, and the operation of JM can be switched to the one for back up manually.

3.4 Set Up for Connecting a dedicated reader Only

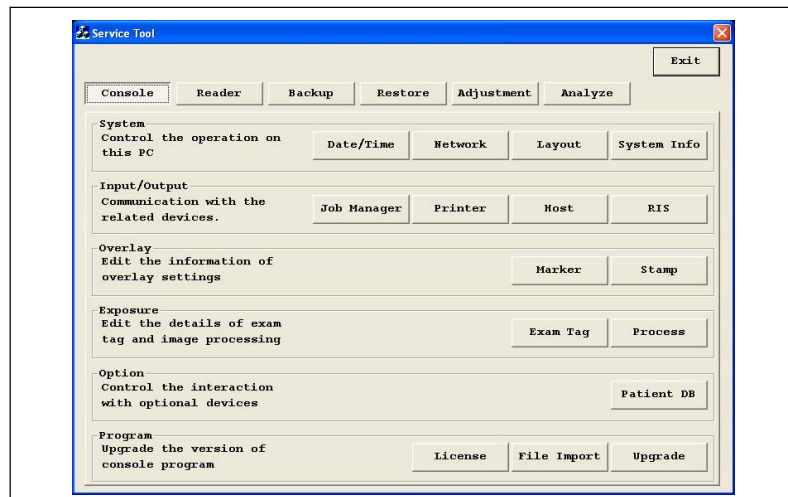
For the case that the CS-3 is connected only to the dedicated reader(REGIUS 350) and not to the REGIUS 190/170, and used as a system console exclusively for the REGIUS 350, only the network setting of the CS-3 is required. Move the unit to the installation site, and set the reader information by referring to ["5.2 Setting the System Properties"](#).

3.4.1 Set Up of CS-3

1. Plug the power cables of CS-3 Control Unit, CS-3 Operation Unit into wall outlet.
2. Press the power button of the CS-3 Control Unit and CS-3 Operation Unit.
Wait for the "Exam Search" screen to be shown.
3. Operate the mouse or touch panel to open the REGIUS Service Screen.
Refer to "[1.6.1 Service Tool Screens](#)" for the procedure to open the REGIUS Service Screen.



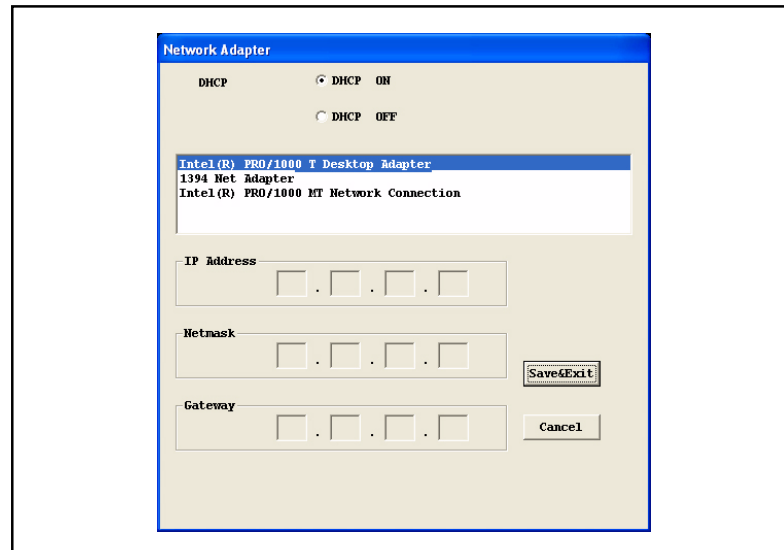
4. Click "Service Tool".
A password input screen will be shown again.
5. Input a service tool password(5678), and click OK.
Service Tool screen(Console) will be shown.



Setting the IP Address

1. Click [Network] of [System].
A network address set screen will be shown.

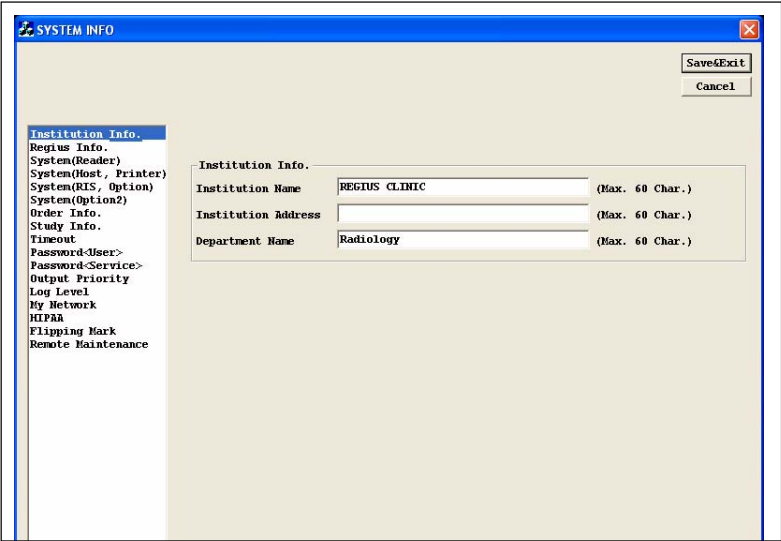
- A device name of the network adapter, IP address, Netmask, Gateway address currently assigned to the CS-3 will be shown on the network address screen.
- In the case that an optional Ethernet card is installed, there shows 2 device names of network adapter. The adapter in upper level “Intel (R) PRO/1000 MT Network Connection” is the device name of the Ethernet adapter installed in the CS-3, “Intel (R) PRO/1000 T Desktop Adaptor” is the device name of the additionally installed Ethernet board.



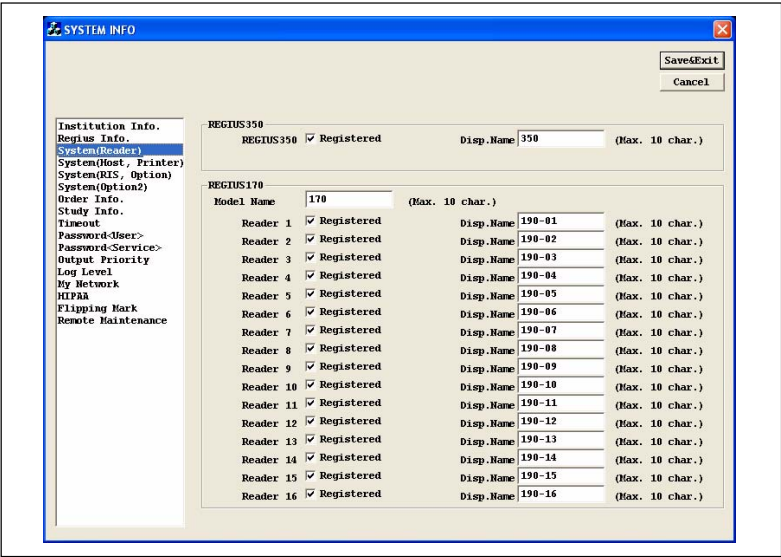
2. Click the device name “Intel (R) PRO/1000 MT Network Connection” to select.
3. Check that the [DHCP OFF] button is selected, then input the IP address, subnet mask that should be set on the CS-3.
4. When an optional Ethernet board is installed, click the device name “Intel (R) PRO/1000 T Desktop Adaptor”, then click [DHCP OFF] button to select, input the IP address, subnet mask of the Ethernet board.
5. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool(console).

Setting the Device Name Because the CS-3 has been set at the factory so that it is connected to one REGIUS 190/170, change the setting to “connection to the REGIUS 190/170 disabled”.

1. Click [System Info] of [System].
SYSTEM INFO screen will be shown.



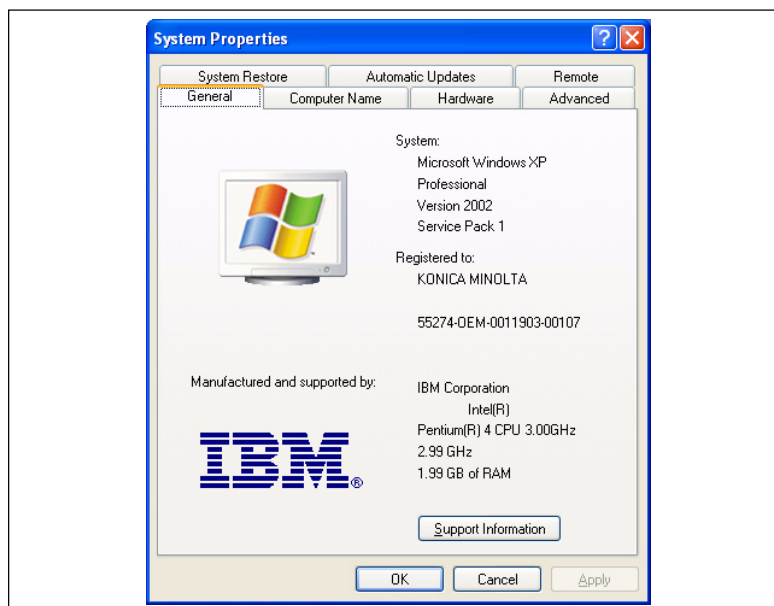
2. Select “System (Reader)” in the set up list shown on the left of the screen.



3. Check [Registered] of [REGIUS 170] to put out the check mark.
4. Click [Save & Exit], then click [Yes] of the confirmation dialogue.
The screen will switch back to the Service Tool(console).

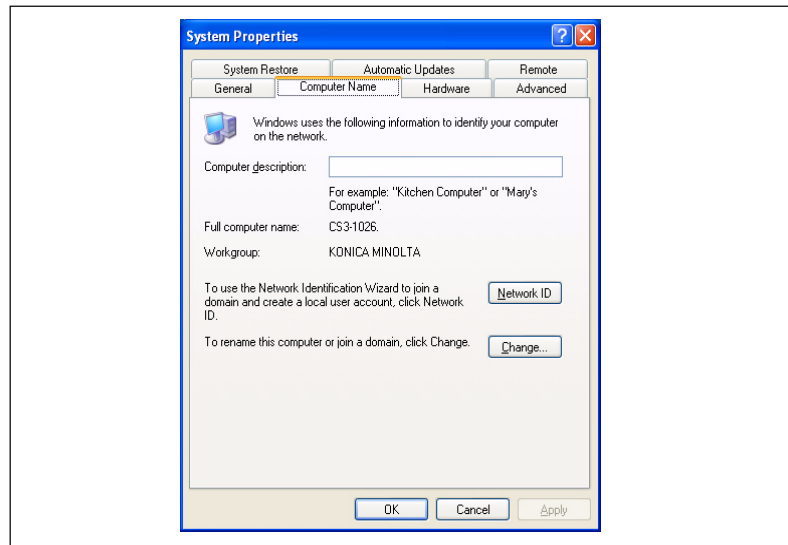
Setting the PC Name To enable the Windows to recognize the CS-3, set the PC name of the CS-3.

1. Click [Exit] on the “Service Tool“ screen.
Confirmation dialogue for exit will be shown.
2. Click [Yes].
Switches to the “REGIUS Service Screen”.
3. Click [Windows Desktop].
REGIUS Service screen will close, and Windows desk top will be shown.
4. Select [Control Panel] from [Start] menu.
“Control Panel” will be shown.
5. Double-click the “System” of the “Performance & Maintenance”.
“Properties” dialogue of system will be shown.



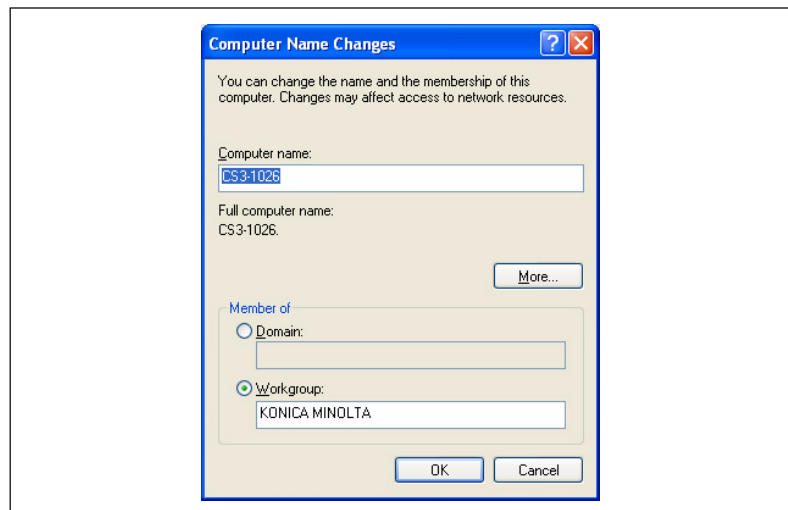
6. Click [Computer Name] tab.

“Computer Name” dialogue will be shown.



7. Click [Change] tab.

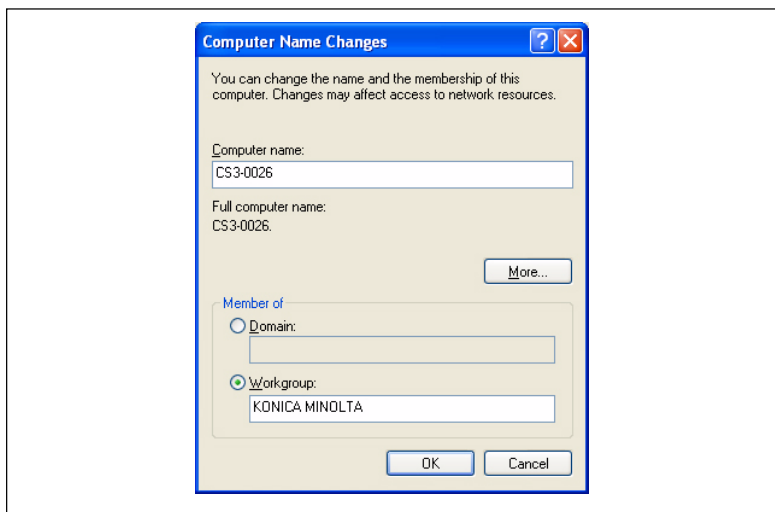
“Computer Name Changes” dialogue will be shown.



8. Input in the [Computer name] the host name (host name set in [Host Name (Local)] of JOBM INFO screen) assigned to the CS-3. Then input “KONICA MINOLTA” in [Work group] of [Member of].

<Important>Always use upper cases to input.

ex) Setting of the CS-3(serial No. : 0026) in the system example of the preceding page.



9. Click [OK].
Dialogue prompting a restart will be shown.
10. Click [OK].
Switches to “System Properties” screen.
11. Click [OK].
Dialogue inquiring an immediate restart will be shown.
12. Click [Yes].
The Computer will restart, and the revised setting will become effective.
13. Computer will be restarted, and the network condition set up in the above becomes valid. Click the [Back] of the “Service Tool” screen.
Dialogue confirming the termination of the program will be shown.

Terminating the System

1. Wait for the “Exam Search” screen of CS-1/CS-3 application to be shown.
2. Click [KONICA MINOLTA].
System menu will be shown.
3. Click [Shutdown] of the “REGIUS Service Screen”.
Termination sequence of the Windows starts.
Upon the termination of the CS-1/CS-3 application, the power of CS-3 will be turned off.
4. Disconnect the Ethernet cables that are temporary connected to the CS-3 Control Unit and the REGIUS 190.
Implementing the above procedures will complete the set up of the CS-3 for dedicated reader use.

3.5 Set Up of REGIUS Linkage (for Use of REGIUS-IM)

When the REGIUS-IM is networked to the system, process parameters can be manipulated and controlled by the REGIUS-IM.

The process parameters that have been manipulated by the REGIUS-IM will be automatically loaded onto the CS-3 as it starts up.

This will help you avoid the work in the system where several CS-3s are networked, to change the setting of each CS-3 every time when the process parameters are changed.

<Important>To configure the REGIUS linkage, it is necessary to set up the REGIUS linkage on the REGIUS-IM in advance. Refer to "REGIUS-IM Installation/Service" manual for the procedure how to set up the REGIUS-IM.

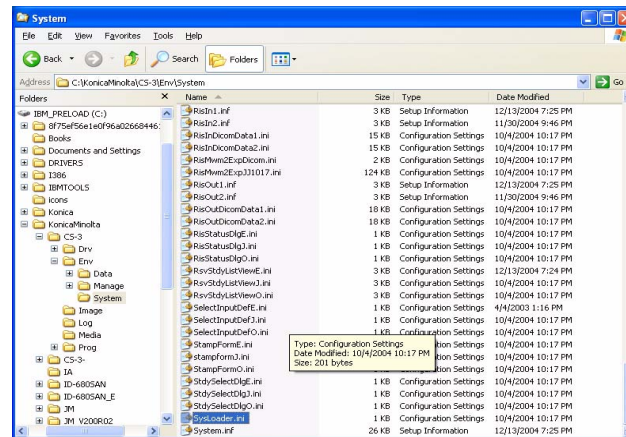
Carry out the following setting when the process parameters are to be manipulated and controlled by the REGIUS-IM.

1. Start the CS-3.
Wait for the initial screen to be shown.
2. Operate the mouse or touch panel to open the "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3", 1-22 for the procedure to open the REGIUS Service Screen.

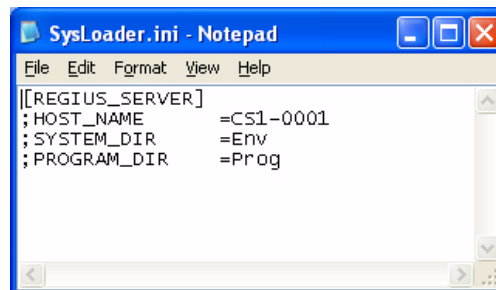


3. Click [Windows Desktop].
Windows desktop will be shown.
4. Click [Start] of the task bar, and open the "Memo Pad" from the program.
5. Select [Open (O)] of [File].
Dialogue for file open will be shown.

6. Switch [File Type (T)] to [All Files], and select “SysLoader.ini” in the directory of “C:\KonicaMinolta\CS-1\Env\System”.



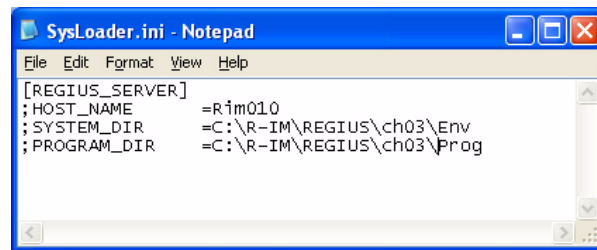
7. Click [Open (O)].
Selected file will be opened.



8. Remove semicolon (;) on the left end of “HOST_NAME”
“SYSTEM_DIR”, and “PROGRAM_DIR”.
9. Define the following for each item.
- “HOST_NAME” :Input the name of REGIUS-IM.
 - “SYSTEM_DIR” :Input the folder name (C:\R-IM\REGIUS\Chxx\Env : xx means input channel) in which process parameters of the REGIUS-IM reside.
 - PROGRAM_DIR :Input the folder name (C:\R-IM\REGIUS\Chxx\Prog : xx means input channel) in which the CS-3 program of the REGIUS-IM reside.

<Important>Each set up contents must be identical to that of the REGIUS-IM. Input correct data referring to “REGIUS-IM Installation/Service” manual.

Ex) Example of input result for the case that the server name of REGIUS_IM is “Rim010”, and the input channel is “Ch03”.



10. After completing input, select [Overwrite & Save (S)] of [File] menu to save the input.

Implementing the above procedures completes the set up of REGIUS-IM linkage.

Carry out the same set up for all CS-3s that are connected to the system. CS-3 will load this setting as it starts up, and verifies that defined server is operating, and valid process parameters exist.

When the process parameters are available, they will be sent from the server, and loaded onto the CS-3.



Chap.4

Connecting the System

.....

Connecting the CS-3s, cassette readers to the network, and install peripheral devices.

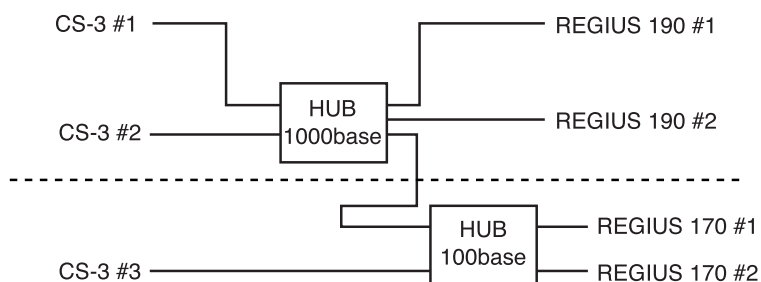
4.1 the Network

Install the CS-3, REGIUS 170, and external JM if necessary at the specified site, connect them to the network.

<Important>Always use a 1000base-compatible HUB when the mammo high resolution (43.75 μ m) image is to be read by the REGIUS 190. Category 5e or more reliable cable should be used as an Ethernet cable.

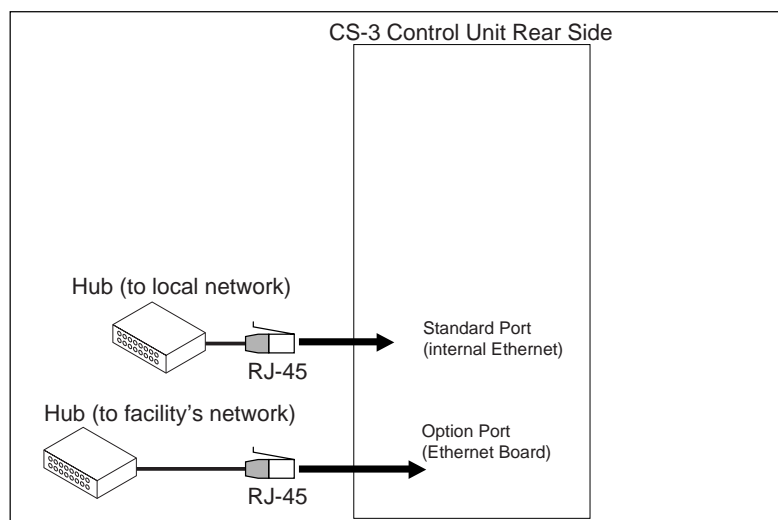
When the REGIUS 190 is not used for reading the mammo high resolution image or only REGIUS 170(s) are networked, 100base-compatible HUB shall be sufficient.

For example in the following diagram, mammo high resolution images read by REGIUS #1 or #2 can be sent to the CS-3#1 or #2, but not to the CS-3#3. The image data that the CS-3#3 can handle in this case are limited to the normal image data and normal mammo image data ready by the REGIUS 170#1 and #2.



4.1.1 Connecting the CS-3 to the Network

Connect the network hub to the CS-3 using an Ethernet cable .



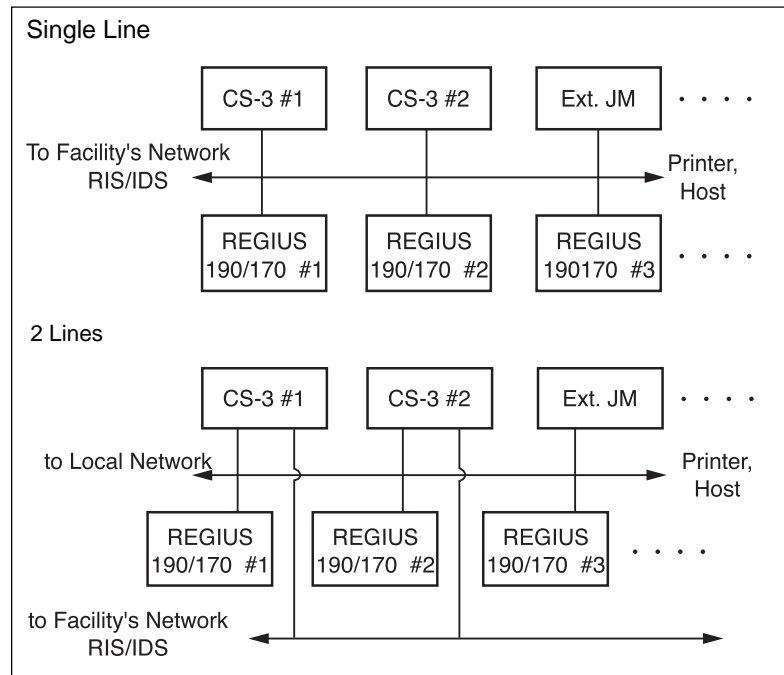
4.1.2 Connecting the REGIUS 190 to the Network

Connect the network hub to the REGIUS 190 using an Ethernet cable. In the case of using 2 lines of network, make sure that the REGIUS 170 is connected to the hub for local network.

4.1.3 Connecting the External JM to the Network

Connect the network hub to the JM using an Ethernet cable.

In the case of using 2 lines of network, make sure that the REGIUS 170 is connected to the hub for local network.



4.1.4 Verifying the Network Connection

Verify that each device is correctly interfaced to the network following the procedure below.

"n" to "m" Connection

1. Press the power switch to start the external JM(or CS-3 with internal JM).
2. Press the power switch, and start the first CS-3.
3. Check that the initial screen of the CS-1/CS-3 application is displayed.
4. In a same manner, start the second and other CS-3s in order, and check that the initial screen of the CS-1/CS-3 application is displayed.

<Important>If "JM error. Service call. Switch to backup JM if available." is shown on the REGIUS Service Screen after completing startup of CS-1/CS-3 application, the application has failed to communicate with the JM.
5. Press Operation switch of the first REGIUS 190/170 to start.
6. Check that "READY" is shown on the LCD after initialization.
7. In a same manner, start the second and other REGIUS 190/170s in order, and check that "READY" is shown on each LCD.

<Important>If a network error is displayed on the LCD, REGIUS 190/170 has failed to communicate with the JM. Take necessary actions by referring to "Trouble at the Installation".

1 to 1 Connection

1. Press the power switch of the CS-3, and start the CS-3.
Wait for the initial screen of the CS-1/CS-3 application to be shown.
2. Press Operation switch of the REGIUS 190/170 to start.
3. Check that "READY" is shown on each LCD after initialization of the REGIUS 190/170.

<Important>If a network error is displayed on the LCD, REGIUS 190/170 has failed to communicate with the JM.

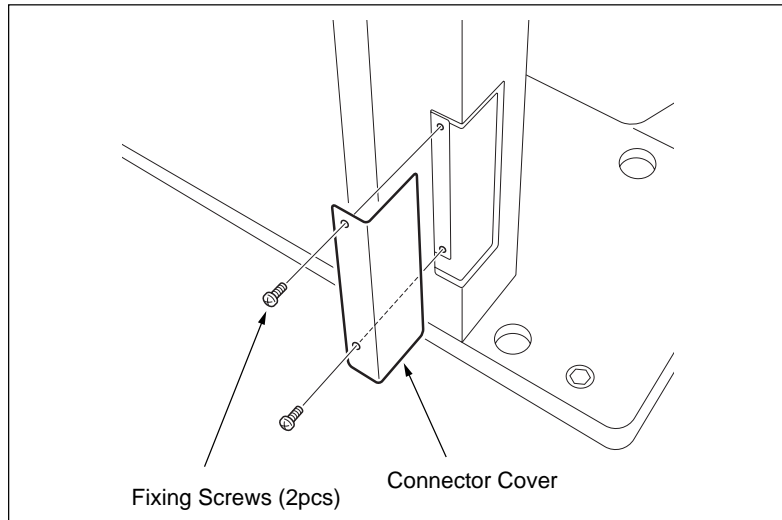
4.2 Connecting the REGIUS 350

Connect the CS-3 and the REGIUS 350 using IEEE1394 cable(option).

<Important>To connect REGIUS 350 to the CS-3, it is necessary to install the IEEE1394 board (option) on the CS-3 in advance.

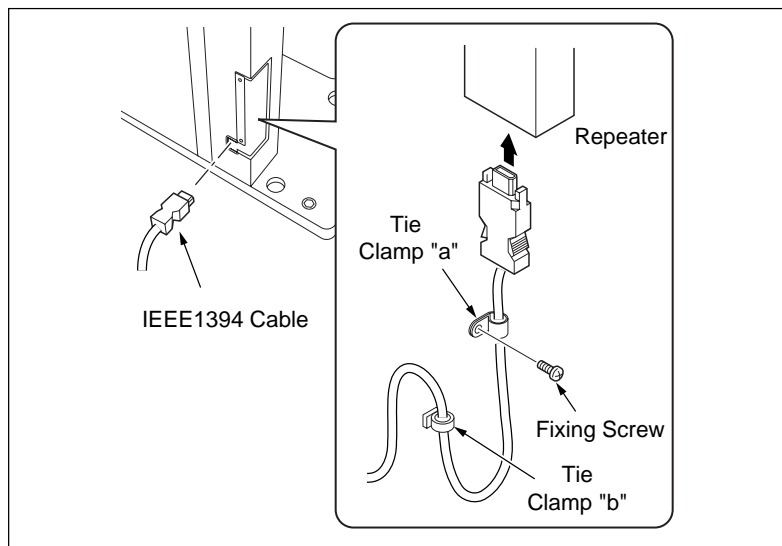
4.2.1 Connecting the REGIUS 350

1. Remove fixing screws (2pcs), then detach a connector cover located on the bottom left of the rear side of the REGIUS 350.

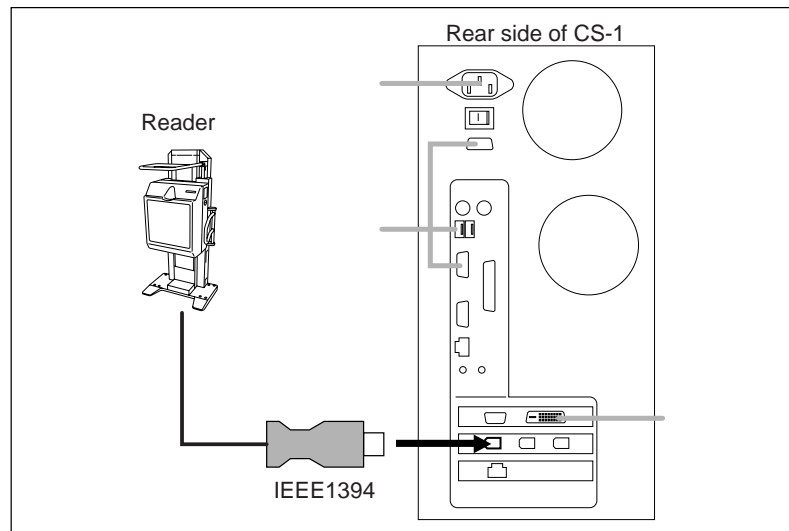


2. Plug a connector of IEEE1394 into the repeater (on the bottom) of the REGIUS 350.

<Important>Make sure that the clamp attached to the connector of IEEE1394 is fully in effect.



3. Putting an IEEE1394 cable through the tie clamp, then fix the tie clamp "a" with a fixing screw.
4. Retain an IEEE1394 cable using the tie clamp "b".
5. Attach the connector cover that is once detached in the step.1 to the original position.
6. Plug an IEEE1394 cable connector into the IEEE1394 port on the rear side of CS-3.

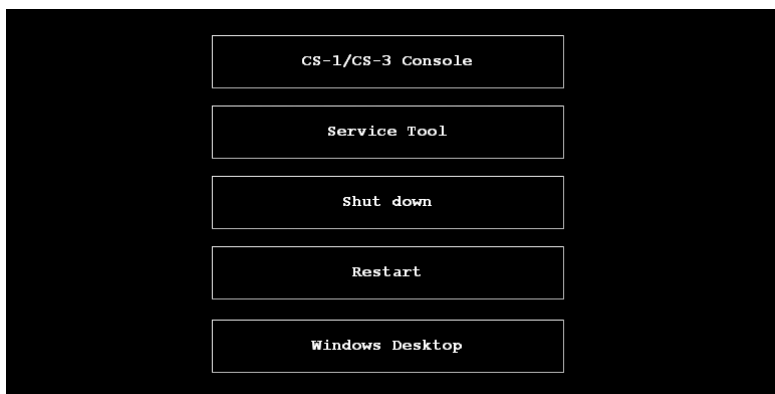


4.2.2 Installing Driver for dedicated reader(REGIUS 350)

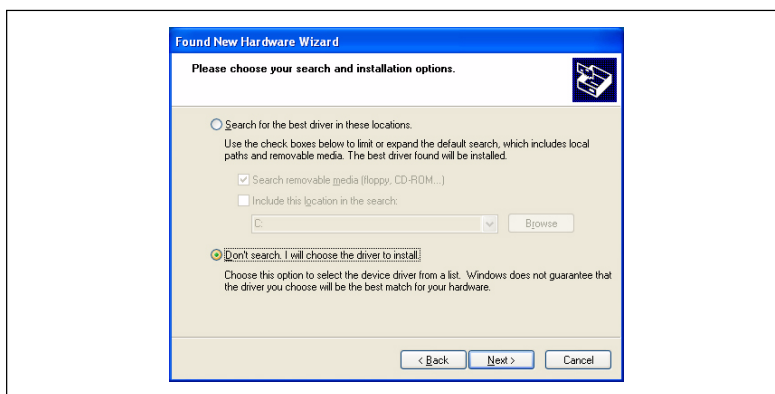
When a dedicated reader(REGIUS 350) is connected to the CS-3, it becomes necessary to install a driver exclusive to the reader.

1. Turn on the power breaker of the reader device.
2. Press the power switch, and start the CS-3.
3. Shut down the CS-1/CS-3 application, and display the "REGIUS Service" screen.
Refer to "1.6 Service Tool Screen" for the procedure to display the "REGIUS Service" screen.

4. Click [Windows Desktop] of the “REGIUS Service” screen.

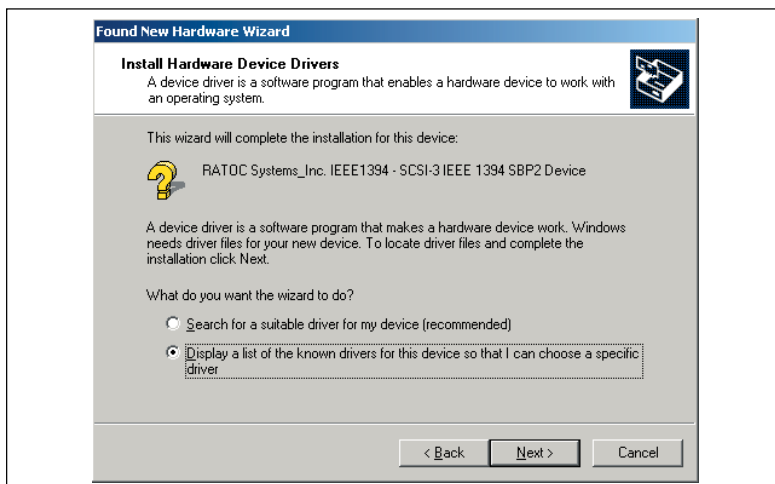


- REGIUS Service Screen closes, and the Windows desktop will be shown.
- “Found New Hardware Wizard” screen is displayed on the desktop.

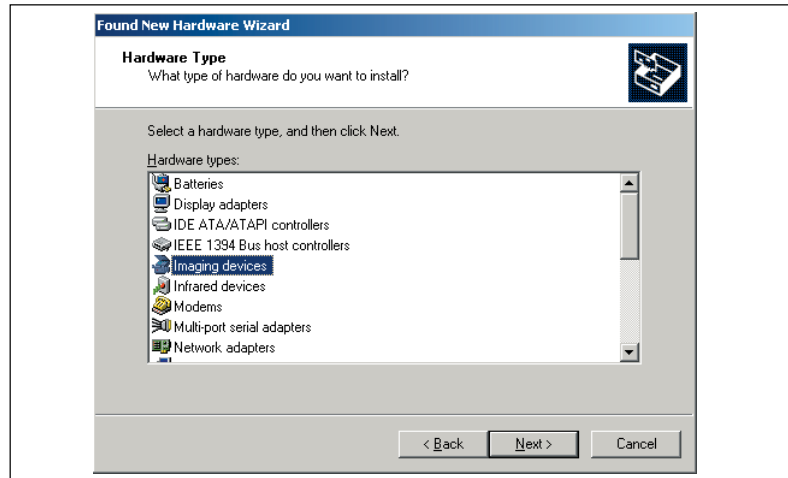


5. Click [Next (N)].

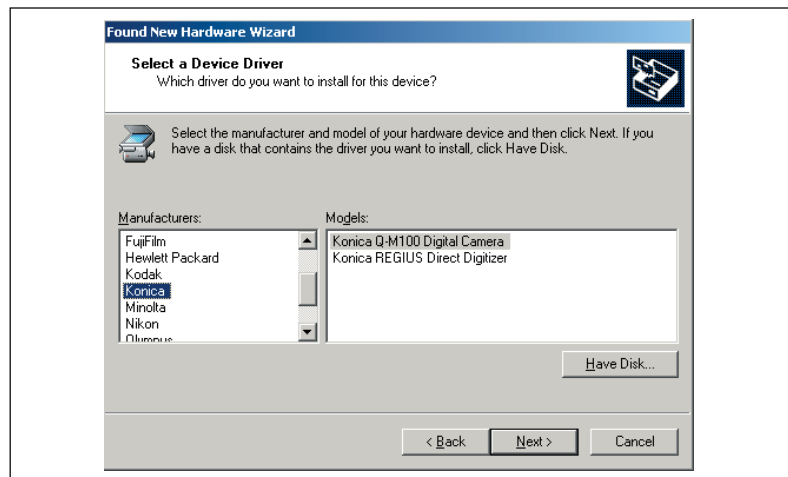
“Hardware Driver Install” dialogue will be shown.



6. Select “Display a list of known drivers for this device so that I can choose a specific driver”. Then click [Next >].
“Hardware Type” dialogue will be shown.



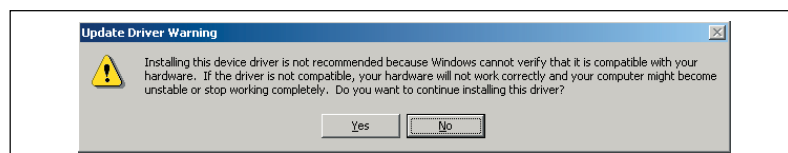
7. Select “Imaging Devices” from “Hardware types”, then click [Next >]
“Select a Device Driver” dialogue will be shown.



8. Select “Konica” from “Manufacturers” list, then select “KONICA REGIUS Direct Digitizer”.

9. Click [Next >].

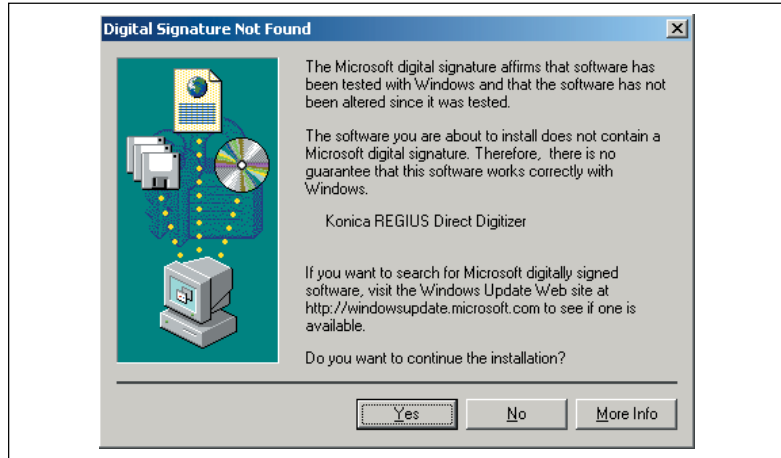
“Update Driver Warning” warning dialogue will be shown.



10.

 Click [Yes].

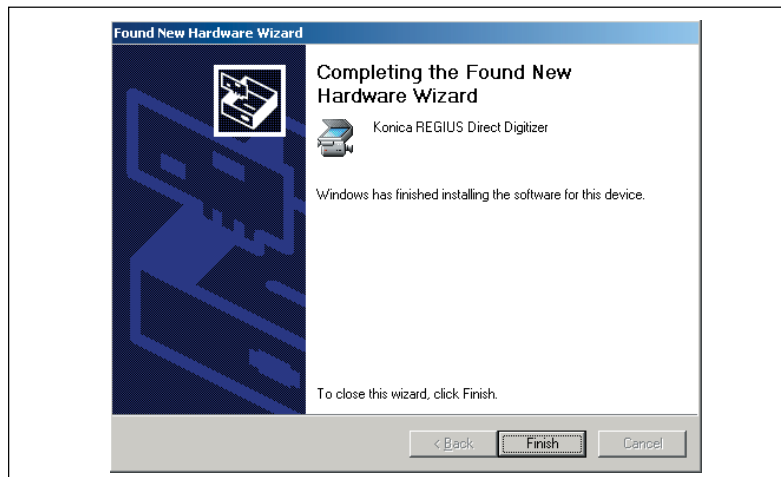
“Digital Signature Not Found” dialogue will be shown.



11.

 Click [Yes].

Installation of the driver starts. Upon completion, “Hardware Driver Install-wizard Finish” dialogue will be shown.



12.

 Click [Finish].

Switches to “Routine Mode” screen.

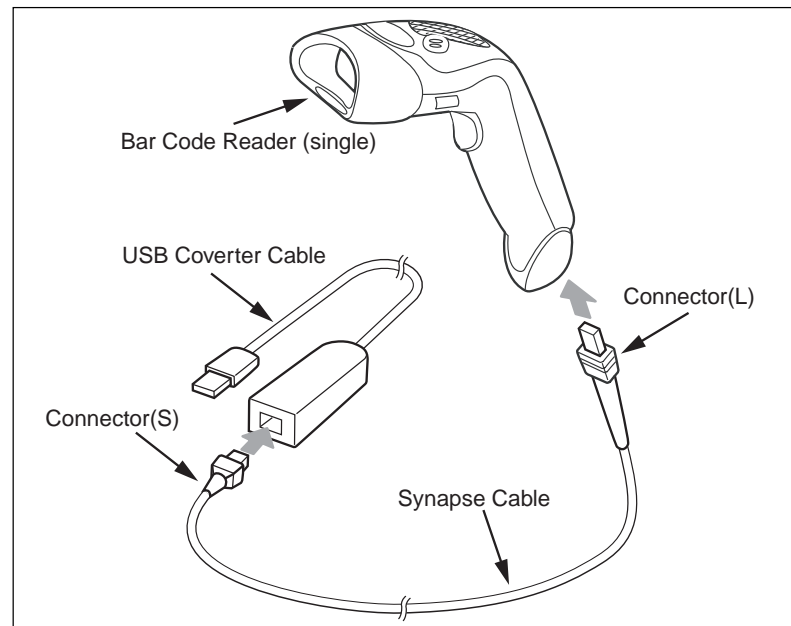
4.3 Installing Barcode Reader

For the system where a barcode registration is set to “barcode Registration”, install a barcode reader (single or multi, option) on the CS-3.

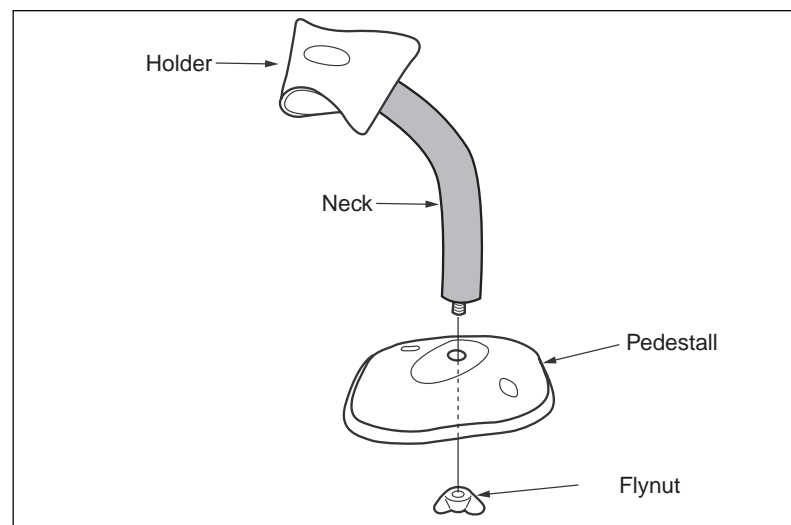
4.3.1 Assembling and Connecting a barcode Reader (single)

The system stand for the single barcode reader (single) can be placed on the desk or attached on the wall using screws. Discuss with the manager for the institute in advance, and install the stand where it is most convenient to read the cassette with the barcode reader.

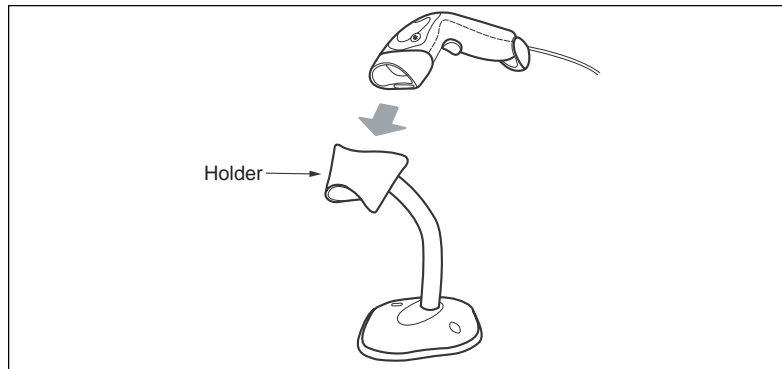
1. When a synapse cable, USB cable is not connected to the barcode reader (single), connect them following the figure below.
Connect the larger side of the connector of the synapse cable to the barcode reader, and the smaller side to the USB converter cable.



2. Remove the flynut from the neck of system stand.
3. Put the screw from the neck into the screw hole of the pedestal, and fix it using the flynut from the bottom.



4. Set the barcode reader (single) in the holder of the system stand.



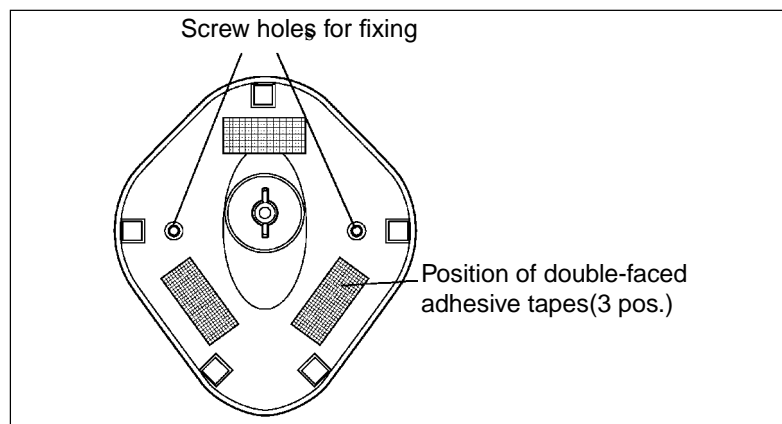
5. Connect the USB conversion cable to the USB port(Type A) located on the rear of the CS-3 Control unit .

- The CS-3 Operation Unit has 6 USB (Type A) ports on its rear. Adjust the angle of the neck of the system stand so that it is best suitable for reading the barcode.

How to fix the stand

The sytem stand can be fixed on the desk, etc. using screws(2 pcs) or double-faced adhesive tape.

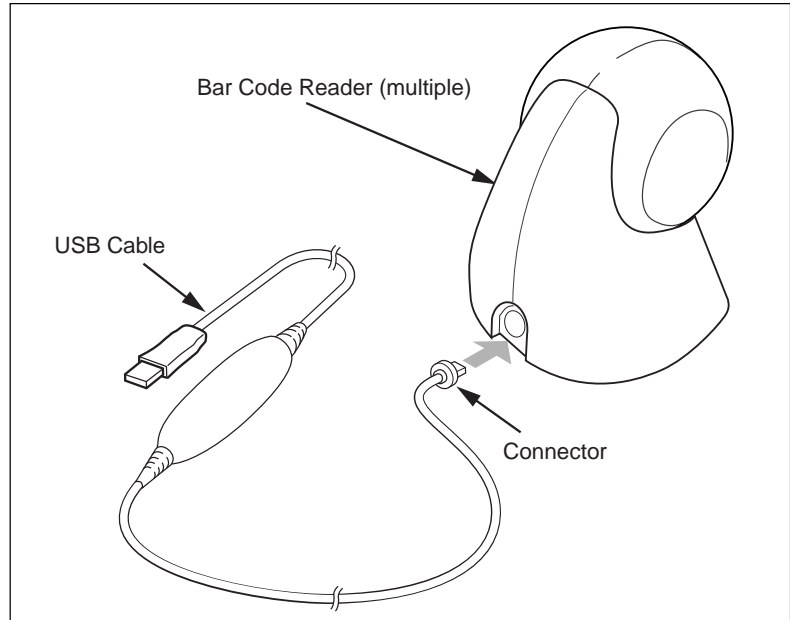
The inner diameter of the screw hole of the pedestal is 5.5mm(0.22 in), and the fringe diameter is 10.75mm(0.43 in). To fix using the double-face adhesive tape, attach 3 pieces of strip(20.4 x 45.8mm) at 3 locations on the back of the pedestal as shown in the figure.



4.3.2 Connecting the barcode Reader (multiple)

This type of barcode reader (multiple) can read the barcode despite of how the direction of the barcode is placed. The barcode reader can be placed on desk or fixed on the wall using screws. Discuss with the manager for the institute in advance, and install the stand where it is most convenient to read the cassette with the barcode reader.

1. Plug the USB cable connector in the rear port of the barcode reader (multiple).



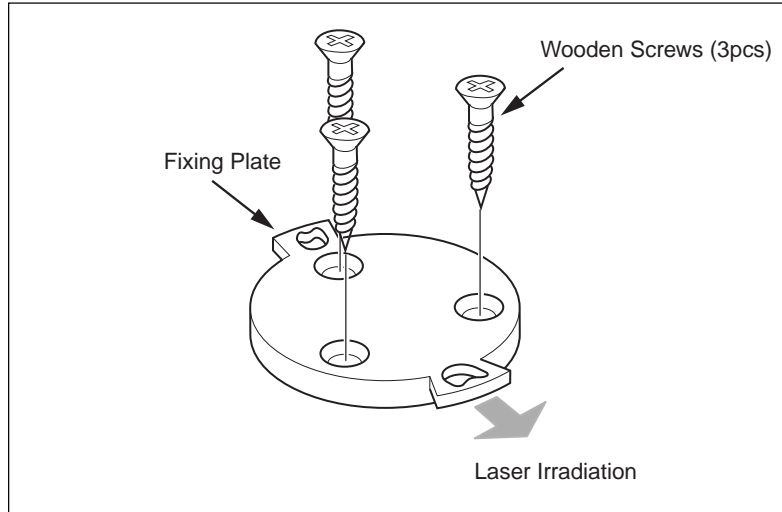
2. Plug the USB cable in the USB connector port (Type A) located on the rear of the CS-3 Control Unit.
 - There are 6 USB connector ports (Type A) on the rear of the CS-3 Control Unit.
3. Position the barcode reader (multiple) at the best convenient place for reading.

How to fix the barcode reader
(multiple) on desk or wall

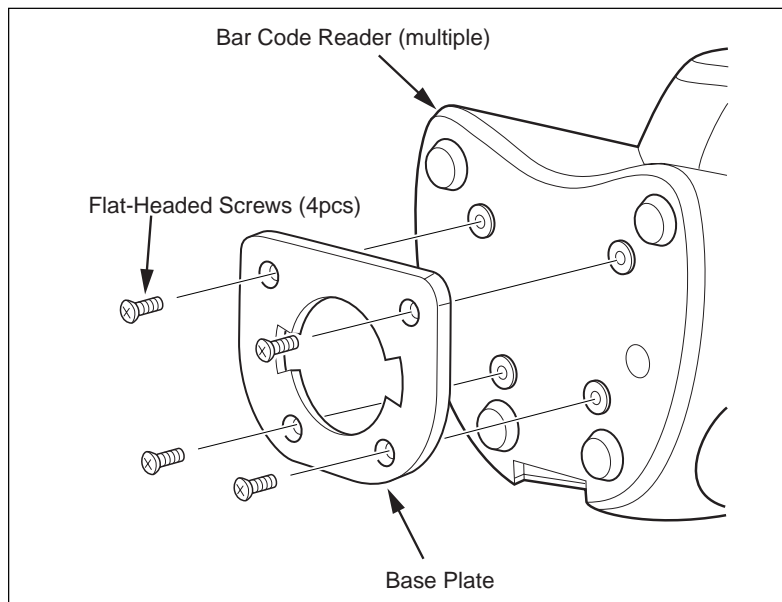
Follow the procedures below to fix the barcode reader (multiple) on desk or wall.

Wooden screws for fixing are attached to the barcode reader (multiple).

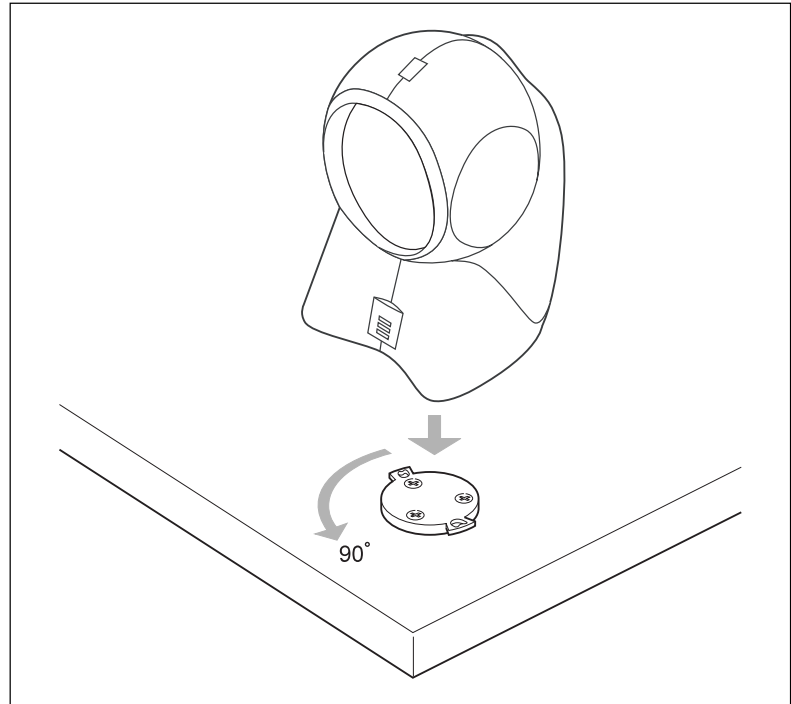
1. Fix the attached fixing plate on the surface using 3 wooden screws
Note the direction of laser irradiation, and fix the plate as illustrated below.



2. Fix the base plate on the bottom back surface using flat-headed screws (4 pcs).



3. Place the barcode reader (multiple) on the fixing plate, and turn it 90° counterclockwise.



Chap.5

Setting the CS-3

In this chapter, general procedures and settings required for installing the CS-3 at different facilities are described. For set up items listed on each set up screen and not described in this chapter, refer to "[Chap.13 Service Tool Screens](#)".

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5.1 Backing Up the Original Settings

Before starting various settings, back up the original setting onto the CD-R for restoration purpose when an fault setting is implemented.

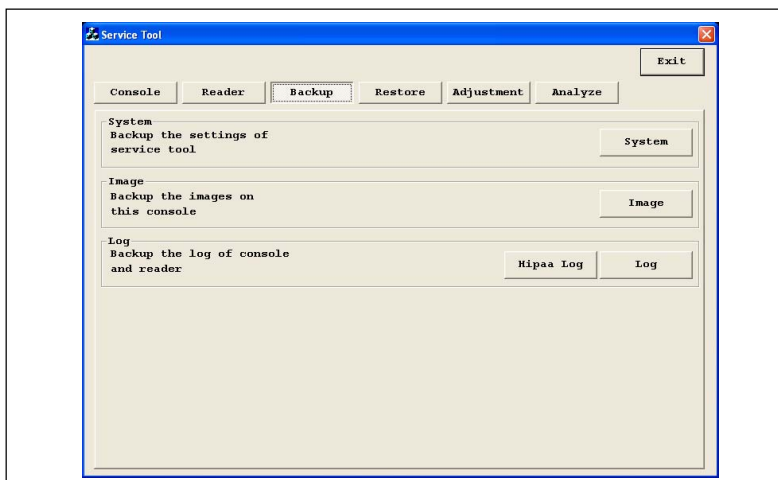
It is recommended to create a folder on the Windows desktop in advance to facilitate the backup.

1. Start the CS-3, and start the Service Tool from the "REGIUS Service screen".

Refer to "1.6 Service Tool Screens of CS-3" 1-22 for procedures to open "REGIUS Service screen".

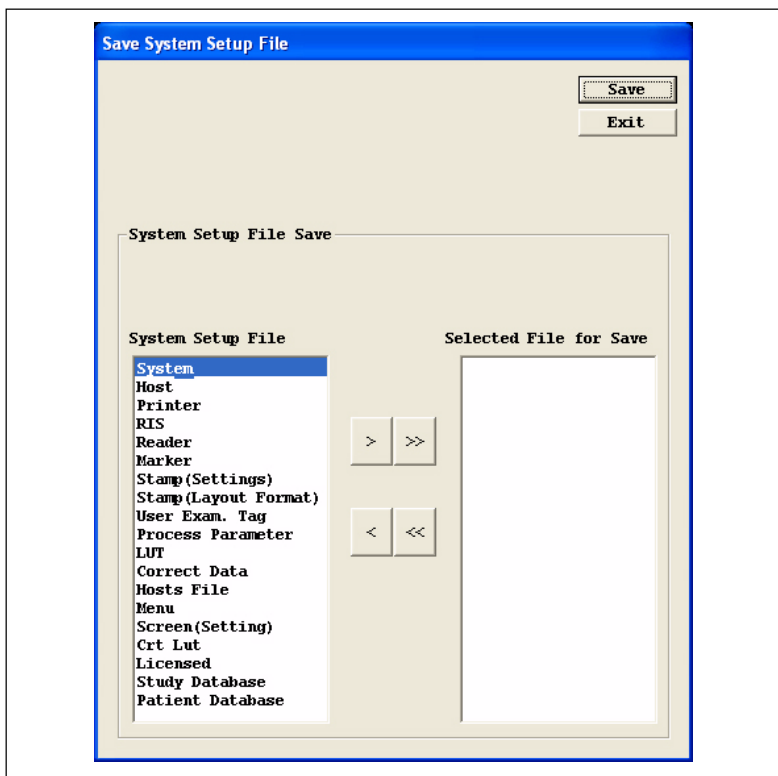
2. Click [Backup] of the "Service Tool" screen (Console).

"Service Tool" screen(Backup) will be shown.



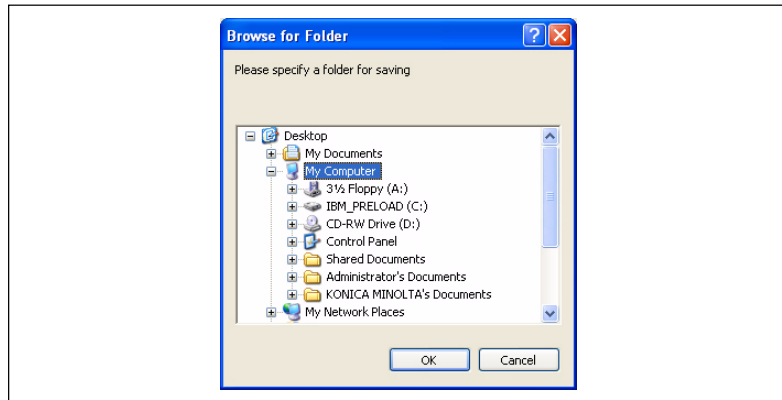
3. Click [System] of "System".

"Save System Setup File" screen will be shown.



4. Click [>>].
All items in the left column will be listed in the right column.

5. Click [Save].
“Browse for Folder” screen will be shown.



6. Select the folder (“Backup” in this example) that has been created in advance, and click [OK].
Dialogue indicating the start of saving will be shown.
7. Click [Yes].
“Saving.....” dialogue will be shown. Upon completing the save, a confirmation dialogue will be shown.
8. Click [Yes] of the dialogue.
Switches to “System Setup <Save>” screen.
9. Click [Exit].
Switches to the “Service Tool (Backup)” screen.
10. Click [Back].
Switches to the “Service Tool” screen.
11. Click [Back to Windows Desktop] to display the Windows desktop.
12. Rewrite all files contained in the folder selected in step.6.
Refer to "A.7 Writing the Backup Data on CD-R" A-38 for details of writing the files.

5.2 Setting the System Properties

Set properties essential to the general configuration of the system.

- In this paragraph, the setting that is essential at the time of installation is described. For the other system property settings, refer to "[Chap.13 Service Tool Screens](#)" 13-1, Setting the Facility/Device Properties
Input the information of facility and CS-3.

1. Click [Console] of the "Service Tool" screen(Backup).
"Service Tool" screen(Console) will be shown.
2. Click [System] of "System".
"SYSTEM INFO" screen will be shown.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.

Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

Institution Info.

Institution Name REGIUS CLINIC (Max. 60 Char.)
Institution Address (Max. 60 Char.)
Department Name Radiology (Max. 60 Char.)

3. Input the institution name, address, department in the Institution Info. column.
The items input here will be printed as Stamp on the film. Input the Institution name, department in discussion with the system manager of Institution

4. Select [Regius Info.] from the menu in the left column.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

System

Manufacturer: KONICA MINOLTA (Max. 16 Char.)
Model Name: 0050 (Max. 16 Char.)
Production Name: CS-3 (Max. 16 Char.)
Serial No.: 1 (Max. 16 Char.)
Shipping Date: 2004 Year Dec 16th

Application

Software Version: 2.00R1T1 Update Version Automatically
Installation Date: 2004 Year Dec 13th
Installation Time: 21 hr. 39 min. 33 sec

5. Input in "Serial No." of "System", excluding the preceeding "0", the lower 4 digits that are listed on the label attached to the rear side of the CS-3.

- Do not input "0" in the head of the serial number. For example, input just "30" for the serial number whose lower 4 digits are "0030".
- Make sure that the serial number does not duplicate any of the other facilities.

6. Input the date of installation on "Y", "M", "D" box of "Shipping Date".

5.2.1 Setting the System Configuration(reader)

Set the configuration of readers that are connected to the CS-3.

1. Select "System (Reader)" in the left column of menu.

SYSTEM INFO

Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

REGIUS350

REGIUS350 ☒ Registered Disp.Name: 350 (Max. 10 char.)

REGIUS170

Model Name: 170 (Max. 10 char.)

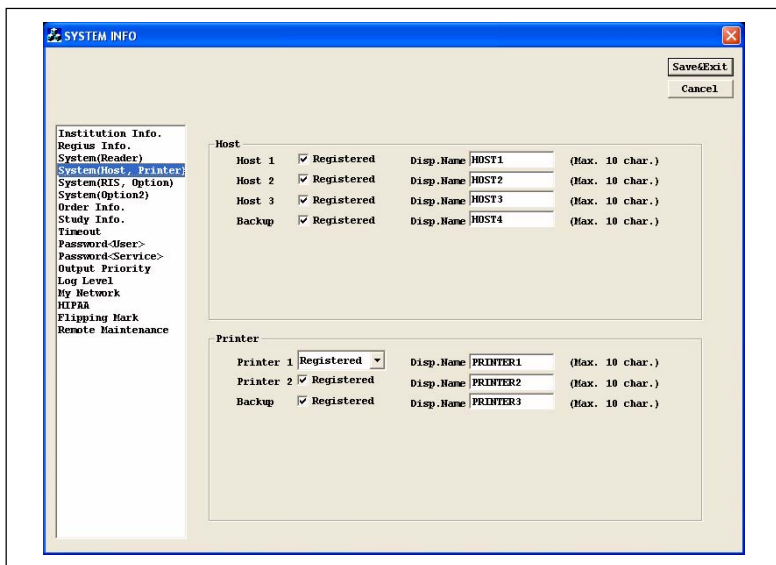
Reader	Registered	Disp.Name	(Max. 10 char.)
Reader 1	<input checked="" type="checkbox"/>	190-01	(Max. 10 char.)
Reader 2	<input checked="" type="checkbox"/>	190-02	(Max. 10 char.)
Reader 3	<input checked="" type="checkbox"/>	190-03	(Max. 10 char.)
Reader 4	<input checked="" type="checkbox"/>	190-04	(Max. 10 char.)
Reader 5	<input checked="" type="checkbox"/>	190-05	(Max. 10 char.)
Reader 6	<input checked="" type="checkbox"/>	190-06	(Max. 10 char.)
Reader 7	<input checked="" type="checkbox"/>	190-07	(Max. 10 char.)
Reader 8	<input checked="" type="checkbox"/>	190-08	(Max. 10 char.)
Reader 9	<input checked="" type="checkbox"/>	190-09	(Max. 10 char.)
Reader 10	<input checked="" type="checkbox"/>	190-10	(Max. 10 char.)
Reader 11	<input checked="" type="checkbox"/>	190-11	(Max. 10 char.)
Reader 12	<input checked="" type="checkbox"/>	190-12	(Max. 10 char.)
Reader 13	<input checked="" type="checkbox"/>	190-13	(Max. 10 char.)
Reader 14	<input checked="" type="checkbox"/>	190-14	(Max. 10 char.)
Reader 15	<input checked="" type="checkbox"/>	190-15	(Max. 10 char.)
Reader 16	<input checked="" type="checkbox"/>	190-16	(Max. 10 char.)

2. Click the check box “Registered” of “REGIUS 350” for the dedicated reader to be connected in the system.
3. Input the name of the dedicated reader for “Registered” in “Model” of the dedicated reader.
The name input here will be displayed on the box from which the device should be selected on each screen of the CS-1/CS-3 application or service tool.
4. Check the check boxes for “Registered” of “REGIUS 170” as many as REGIUS 170/190(s) are connected in the system.
This item has been set in "[Chap.3 Setting the Network](#)" 3-1. Changes are required only when REGIUS 190/170 is added or disconnected.
5. Input the general name of the REGIUS 190/170 in “Model”.
The name input here will be displayed on the box from which the REGIUS 190/170 should be selected on each screen of the CS-1/CS-3 application.
6. Input the name of the REGIUS 190/170 in “Model” of the REGIUS 190/170 that is set to “Registered”.
The name input here will be shown at the specific position on the CS-1/CS-3 application screens to indicate the specific REGIUS 170. (1 byte x 10 characters)

5.2.2 Setting the System Configuration(Host • Printer)

Set the configuration of the host • printers that are connected to the CS-3.

1. Select “System (Host, Printer)” from the menu on the left.



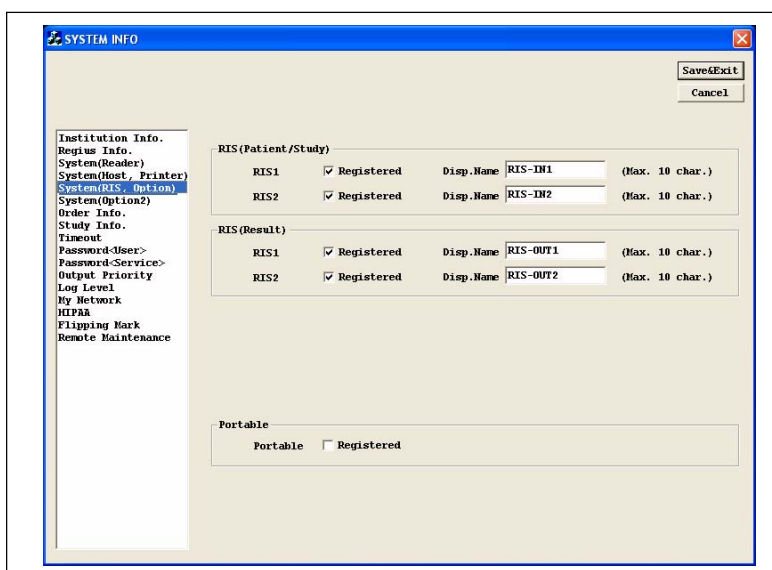
2. Check the check box for “Registered” of “Host” as many as hosts that are connected to the CS-3.
• “Host 4” is exclusive for back up.

3. Input the host name in "Disp. Name" of the host that is set to "Registered".
4. Check the check box for "Registered" of "Printer" as many as printers to which the CS-3 sends the print data.
 - Select from the list only for "Printer 1".
 - "Printer 3" is exclusively for backup purpose.
 - "Printer 3" is exclusive for back up.
5. Input the printer name in "Disp. Name" of the host that is set to "Registered Device".

5.2.3 Setting the System Configuration(RIS • Option)

Set the RIS and options that will be connected to the CS-3.

1. Select "System (RIS, Option)" from the menu in the left.



2. Check "Registered" of "RIS Config.(Patien/Study.)" according to the RIS configuration from which the CS-3 receives Patient/Study. Info.
3. Input the name in "Disp. Name" of RIS that is set to "Device Registered".
4. Check the check box for "Registered" of "RIS (Result)" according to the RIS configuration to which the CS-3 sends the examination result.
5. Input in the "Disp. Name" box, the name of RIS that is set as "Registered device".

6. Check the check box of "Registered Device" for the "Portable" when a portable terminal (handy terminal) is used.
7. After completing the input, click "Save & Exit"
Confirmation dialogue will be shown.

8. Click "Yes".

Switches to "Service Tool" screen(Console).

Implementing the above procedure complete the set up of the system configuration properties. Proceed to the next page onward according to the installed devices.

- ["Setting the REGIUS 190/170 Information", 5-11](#)
- ["Setting the dedicated reader in Detail", 5-13](#)
- ["Setting the Printer Information", 5-18](#)
- ["Setting the Host Information", 5-22](#)
- ["Setting the RIS Information", 5-28](#)

Check the check box of "Registered" of "Portable" when the portable device is used.

5.3 Setting the REGIUS 190/170 Information

Set the network information of the REGIUS 170 that is set as “Registered” in ["5.2.1 Setting the System Configuration\(reader\)"](#).

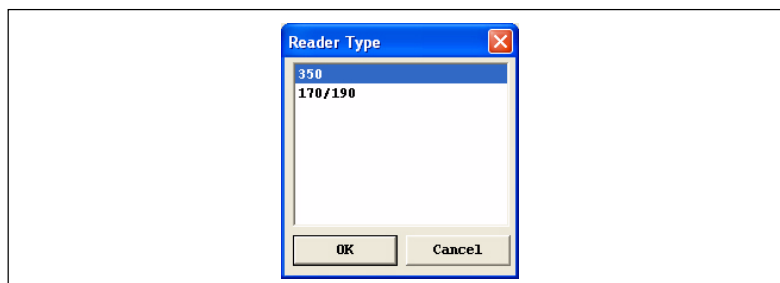
- This setting is not necessary for the CS-3 to which no REGIUS 190/170 is connected.

1. Click [Reader] of “Service Tool” screen(Console).

“Service Tool” screen(Reader) will be shown.

2. Click [Reader] of [Reader].

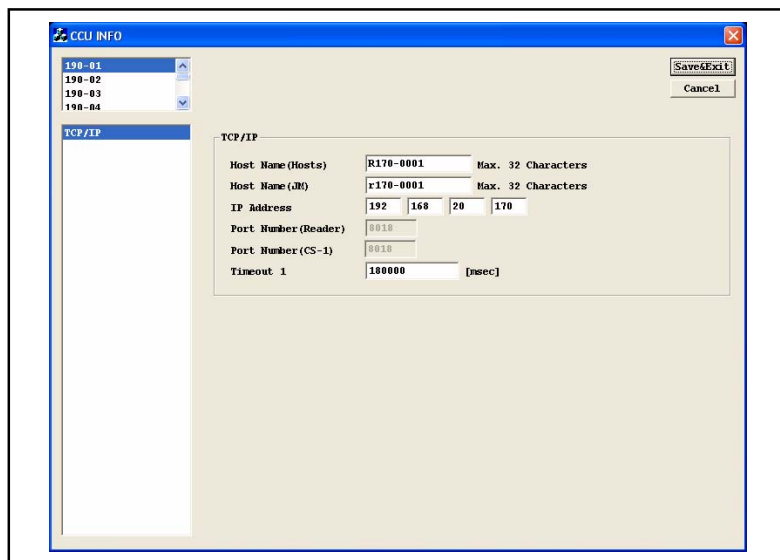
When both REGIUS 190/170 and dedicated reader(REGIUS 350) are registered as device, “Reader Type” screen will be shown.



3. Select [REGIUS 170/190] from “Reader Type” screen, and click [OK].

“CCU INFO” screen will be shown.

When only REGIUS 190/170 is registered as device, “Select Reader Type” screen will not be shown, instead, “CCU INFO” screen will be shown directly after clicking [OK].



4. When several REGIUS 190/170s are registered as device in “n to m connection”, select the REGIUS 190/170 that should be set up in the upper left menu.

The device name shown here is the one set in ["Setting the System Configuration\(reader\)"](#), 5-6 .

5. Input the host name set in the “Network Set Up” screen for the REGIUS 190/170 in “Host Name” of “TCP-IP” using upper case.

6. Input the host name set in the "Network Info" screen for the REGIUS 190/170 in "Host Name(JM)" of "TCP-IP" using upper case.
7. Input the IP address set in the "Network Info" screen for the REGIUS 190/170 in "Host Name(JM)" of "TCP-IP".
8. When several REGIUS 190/170s have been registered as device in "n to m connection", repeat the step 5 through 7 for all readers listed in the upper left menu, and input the necessary properties.
9. After completing the input, click "Save & Exit"
Confirmation dialogue will be shown.
10. Click "Yes".
Switches to "Service Tool" screen(Reader).

5.4 Setting the dedicated reader in Detail

Set the properties for dedicated reader(REGIUS 350).

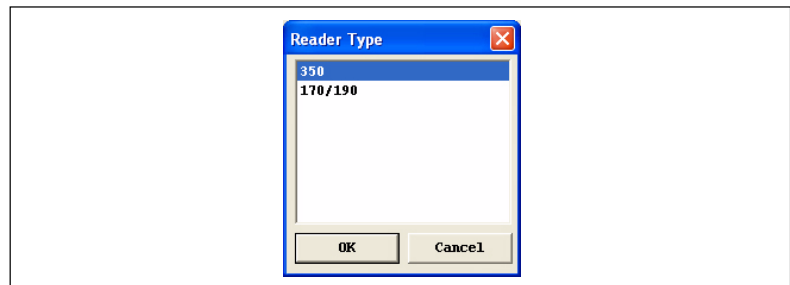
- The set up data will be written in the reader, therefore the target dedicated reader should be connected to the CS-3 and initialized prior to the setting described below.

5.4.1 Setting the Reader Information

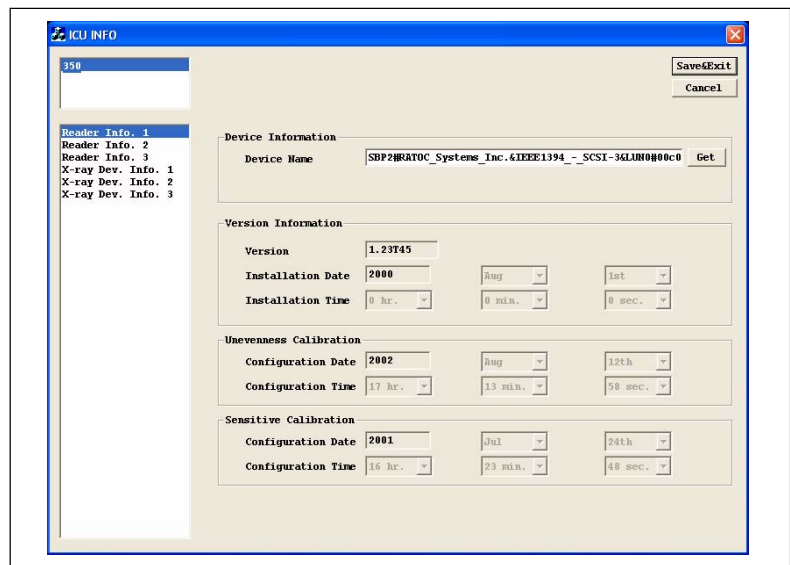
1. Click [Reader] of "Service Tool" screen(Console).
"Service Tool" screen(Reader) will be shown.

2. Click [Reader] of [System].

When both REGIUS 190/170 and dedicated reader(REGIUS 350) are registered as device, "Reader Type" screen will be shown.



3. Select [REGIUS 350] from "Reader Type" screen, and click [OK].
"ICU INFO" screen will be shown.

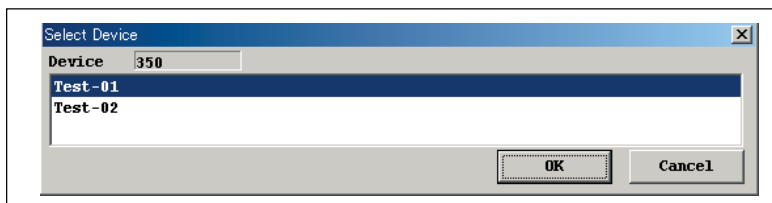


4. When two dedicated readers are connected, select the dedicated reader(REGIUS 350) in the upper left menu.

The device name shown here is the one set in "[Setting the System Configuration\(reader\)](#)", 5-6

5. Click [Get] located in the right of “Device Information”.

“Select Device” dialogue will be shown, all LEDs on the operation panel of the reader blinks.



- When two readers are connected, LED on the dedicated reader that is highlighted on the “Select Device” dialogue will blink.
- If there is an problem in communication with the dedicated reader, an error indicating “No device found” will be displayed.

6. When two readers are connected, select the device name in the dialogue so that the reader that is selected in step 4.

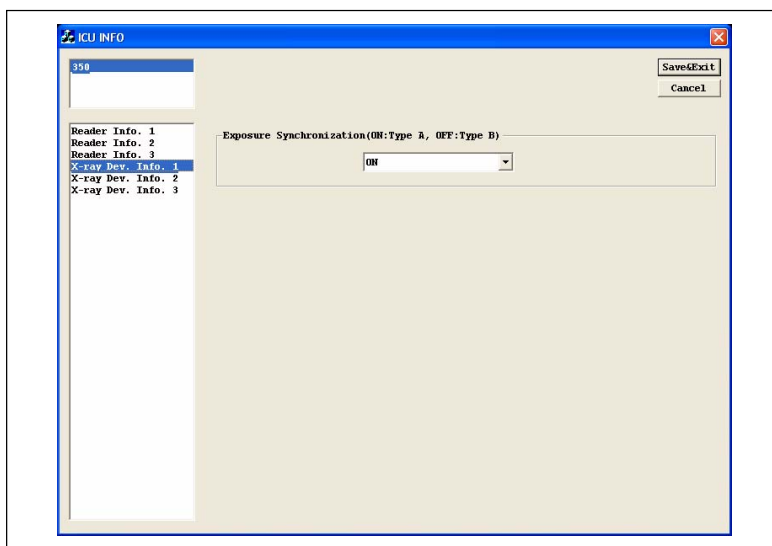
7. Click [OK] after checking that the LED(s) on the selected reader blinks.

At this stage, the relation between the reader name and the reader device that are used in the network is determined.

- In precise, the setting is related to the identical number that is registered in the IEEE1394 device (SCSI converter).

8. When two readers are connected, repeat step 4 through 7 for the other reader.

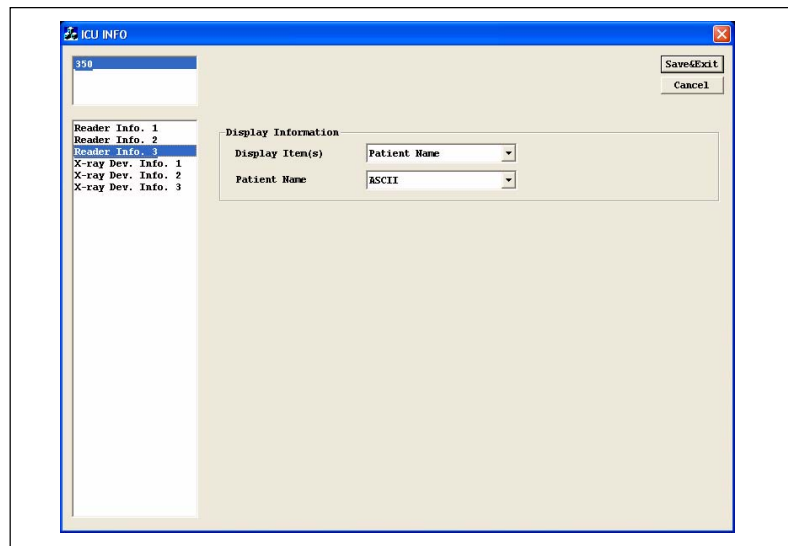
9. Select “X-ray Dev. Info.1 (Exposure Signal)” in the lower left menu.



10. Select “ON” for “Exposure Synchronization”.

<Important>Selecting “OFF” for this setting will initiate the reading according to the timer set on the tag key.

11. Select "Reader Info. 3" in the lower left menu.



12. Set up the patient information that the user wants to display on the display panel of the reader device by referring to the following table.

Item to be set	Setting
Display Form	<ul style="list-style-type: none"> • Patient name only • Patient ID only • Patient name and ID alternately displayed
Patient Name	Select from alphabets.

13. In the case that a bulb irradiation field aperture-interlocked board is not installed, proceed to step 14. Otherwise, proceed to "[Setting the Collimation Synchronization Function\(option\)](#)", 5-16".

14. After completing the input, click [Save & Exit].

Confirmation dialogue will be shown.

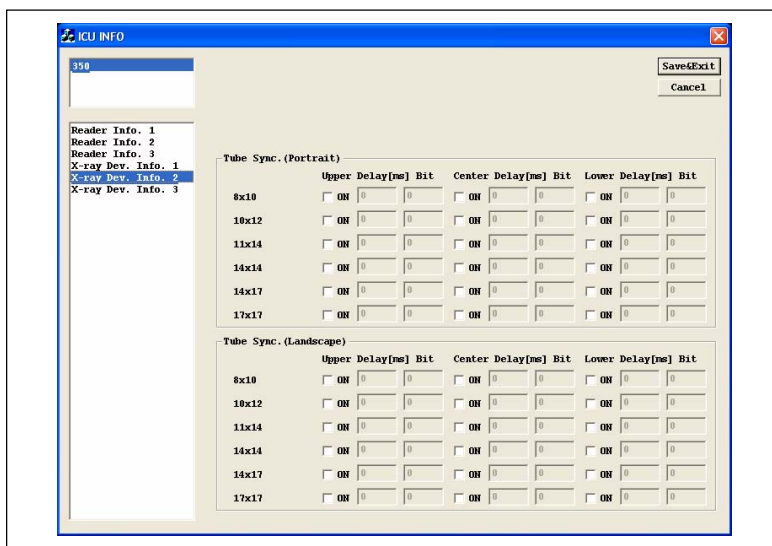
15. Click [Yes].

Switches to "Service Tool" screen(Reader).

5.4.2 Setting the Collimation Synchronization Function(option)

When a collimation synchronization board is installed, set up the bulb position correction and irradiation field aperture-interlocked correction.

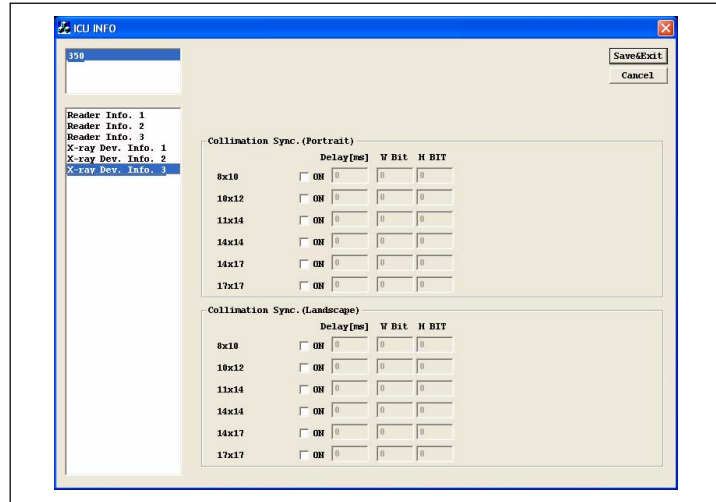
1. When there are two readers are connected, select the reader device to be set in the upper left menu.



2. Select "X-ray Dev. Info. 2" in the lower left menu.
3. Set the X-ray Tube position correction following the table below.
 - The set value shall be different depending on the target X-ray generator device.

Item to be set	Setting
Check Box	Select the position and size to which the X-ray Tube position to be interlocked.
Delay	Set the delay(ms) from the start of interlock operation to the start of exposure. Leave at "0" for normal use.
Bit	Set the bit assign properties(Bit) that will be sent to the target X-ray device from the reader.

4. When the X-ray generator device is made by Toshiba, select “X-ray Dev. Info. 3”.



5. Set up the irradiation aperture correction following the table below.

Item to be set	Setting
Check Box	Select the position and size to which the X-ray Tube position to be interlocked.
Delay	Set the delay(ms) from the start of interlock operation to the start of exposure. Leave at “0” for normal use.
Ver. Bit/Hor. Bit	Set the bit assign properties(Bit) that will be sent to the target X-ray device from the reader.

6. After completing the input, click “Save & Exit”
Confirmation dialogue will be shown.

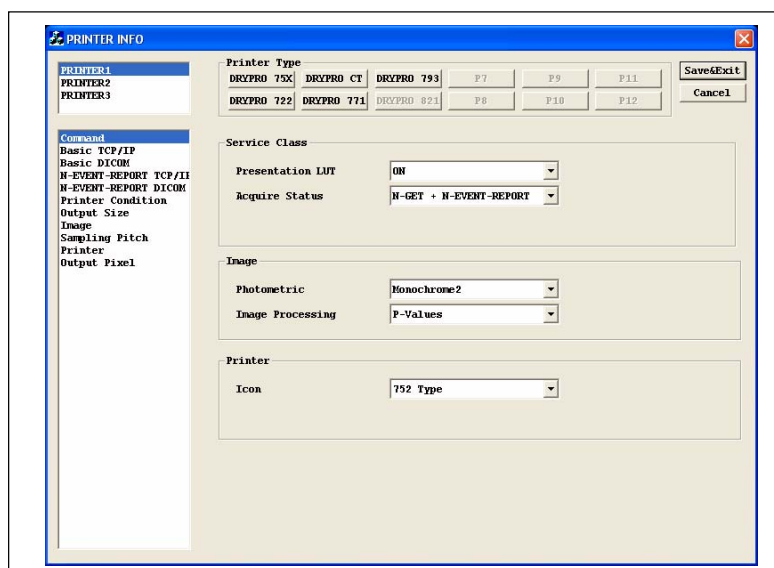
7. Click “Yes”.
Switches to “Service Tool” screen(Reader).

5.5 Setting the Printer Information

Set the printer used in the system.

- When the printer in use is KONICA MINOLTA made, just select the printer type in “Printer Type” to automatically make an appropriate setting for the selected printer. In this case, it is not necessary to touch the settings other than “Basic TCP/IP” and “Output Size”.

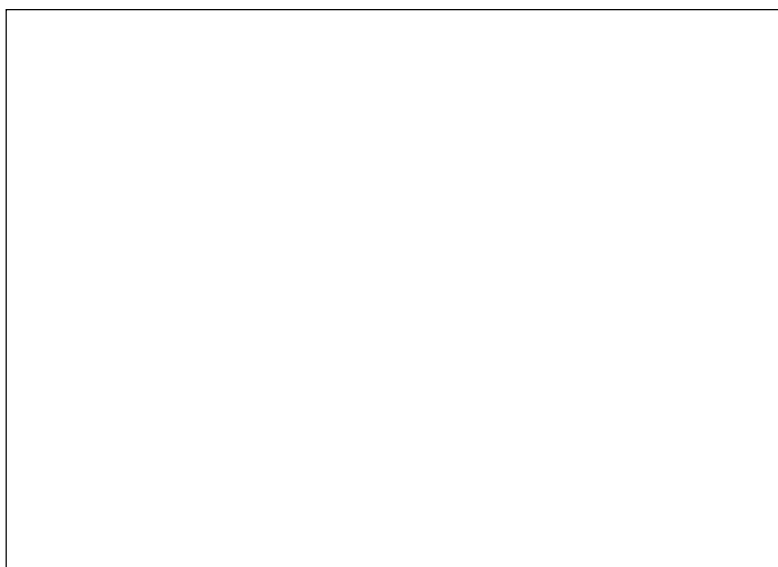
- Click [Printer] of “Input/Output” in “Service Tool” screen(Console).
“PRINTER INFO • Command” screen will be shown.



- Select the printer name that will be set, from the menu on the upper left.
The names listed here are those set in the step.5 in "5.5 Setting the Printer Information".
- Set the “Commands” and “Printer” referring to the table below.

Items to be set	Properties to be set
Presentation LUT	Selection of sending or not sending to the printer the LUT for equalizing the density between the monitor and printer output. <ul style="list-style-type: none"> Normally select “OFF” when the connected printer is made by Konica.
Acquire Status	According to the output printer, select from “OFF”, “N-GET”, “N-EVENT-REPORT”, [N-GET+N-EVENT-REPORT”.
Photometric	Selection of luminance measurement method.
Icon	Select the icon to be shown when the printer is selected form “722 Type”, “752 Type”, “771 Type” and “793 Type”.

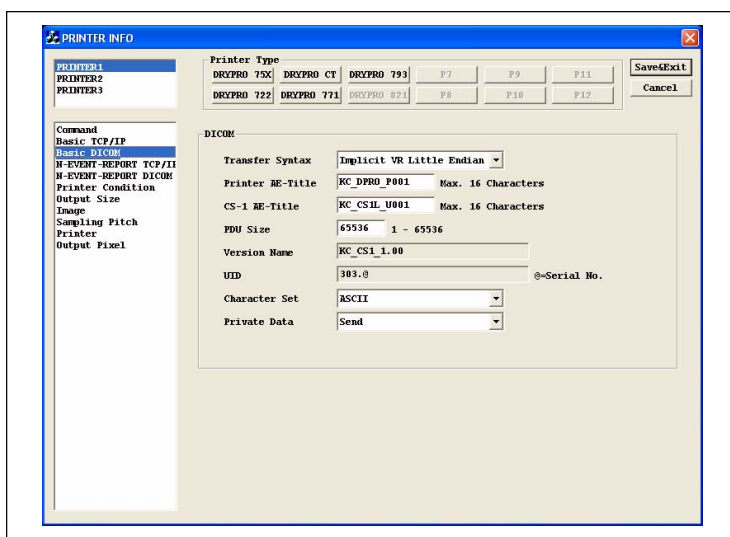
4. Select "Basic TCP/IP" in the lower left menu.



5. Set "Basic TCP/IP" referring to the table below.

Items to be set	Properties to be set
Host Name	Make sure to input the printer information in discussion with the system manager of the facility.
IP Address	
Port Number	
Timeout 1	Set the time-out for the printer to wait the request signal from the CS-3.
Interval 1	Set the interval after the first transmission of the request signal when several request signals exist.
Interval 2	Set the interval for confirmation of the setting when the status acquisition is set to "N-GET" or "N-GET-REPORT" in the step.3.

6. Select “Basic DICOM” in the lower left menu.



7. Set “Basic DICOM” referring to the table below.

Items to be set	Properties to be set
Transfer Syntax	<p>Normally select the “Implicit VR Little Endian”.</p> <ul style="list-style-type: none"> • "13.7.4 “PRINTER INFO • Basic DICOM” Screen " 13-39
Printer AE-Title	Make sure to input the printer properties in discussion with the system manager of the facility.
CS-3 AE-Title	
PDU Size	Normally use the default.
Version Name	<p>Displays the implemented version “KC_CS3_1.00”.</p> <ul style="list-style-type: none"> • Unable to change
UID	<p>Displays “303.@”.</p> <ul style="list-style-type: none"> • Unable to change
Character Set	Normally use the default.
Private Date	Normally select "Send".

8. When “N-EVENT-REPORT” is selected for the step. 3 “Command” -->“Status Acquisition”, select “N-EVENT-REPORT TCP/IP” and “N-EVENT-REPORT DICOM” in the lower menu column, and make settings by referring to the step.5 and 7.

- Clicking [Import] displayed on the bottom right of the screen will initiate copying the setting made in step.5 and 7.

9. Select "Output Size" in the lower left menu.
10. Click in "Film Presence" the film size that is present in the supply tray, and select the film type in "Film in Tray".
 - In the cases where the printer to be used is the DRYPRO 752, and both regular film and mammo film are printed, load different sizes for regular and mammo films.
11. Select "Printer Condition" in the lower left menu.
12. Select the type for both regular film and mammo film.
 - When the printer is DRYPRO 793, leave them as default for both regular film and mammo film.
13. After completing the input, click [Save & Exit].

Confirmation dialogue will be shown.
14. Click [Yes].

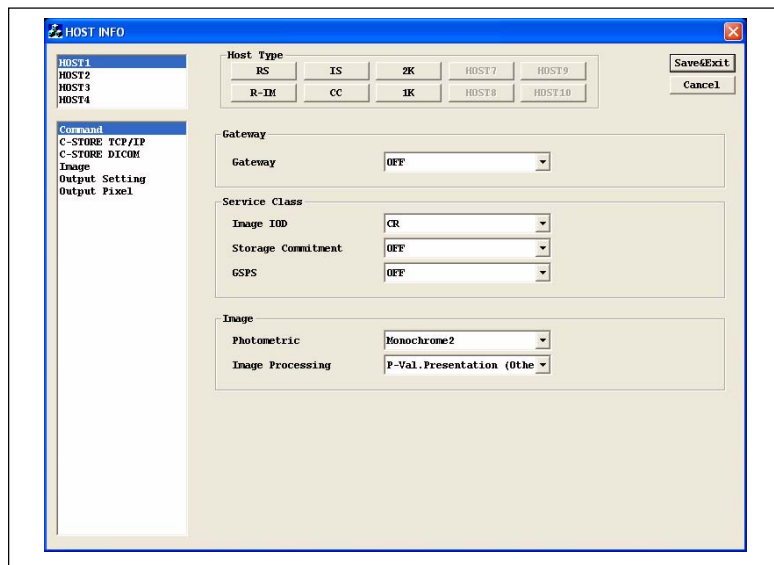
Switches to "Service Tool" screen(Console).

5.6 Setting the Host Information

Carry out various settings for the connection of the host.

- When the host is the device of other manufacturer, carry out the setting following the instruction provided by that manufacture.

- Click [HOST] of [Input/Output] on the "Service Tool" screen (Console).
"HOST INFO•Command" setting screen will be shown.



- Select the host name that will be set, from the menu on the upper left.
The names listed here are those set in "Setting the System Configuration(Host • Printer)", 5-7 .
- Set the "Command" referring to the table below.

Items to be set	Properties to be set
Gateway	Set to "ON" when gateway program (protocol other than DICOM) is used.
Image IOD	Select the data type to be sent to the host. Select "CR" when it is Konica product.
Storage Commitment	Select "ON" when communication relating to "Storage Commitment" service is conducted with the host.
GSFS	Select "ON" when communication relating to "GSFS" service is conducted with the host.
Photometric	Selection of luminance measurement method. <ul style="list-style-type: none"> Select "Monochrome1" when the connected printer is KonicaMinolta made.
Image Processing	Select the processing method of the image to be sent to the host. <ul style="list-style-type: none"> When the host is KonicaMinolta made, select "No process (KonicaMinolta)". Normally select "Image Processed, P-Value Output (Third Party)" when the host is third party's product.

4. Select “C-STORE TCP/IP” from the menu of the lower column.

The screenshot shows the 'HOST INFO' dialog box. On the left, a list of hosts (HOST1 to HOST4) and a 'Command' menu are visible. The 'Command' menu has 'C-STORE TCP/IP' selected. The main area displays configuration fields for TCP/IP: Host Name (HOST1), IP Address (192.168.20.101), Port Number (5200), Timeout 1 (60000 msec), and Interval 1 (1000 msec). Buttons for 'Save/Exit' and 'Cancel' are at the top right.

5. Set “TCP/IP” by referring to the table below.

Items to be set	Properties to be set
Host Name	Make sure to input the host properties in discussion with the system manager of the facility.
IP Address	
Port Number	
Timeout 1	Set the time-out of duration before the CS-3 receives the response from the host against the request signal. • Default : 60000.
Interval 1	Set the interval after the first transmission of the request signal when several request signals exist. • Default : 10000

6. Select “C-STORE DICOM” from the menu of the lower column.

The screenshot shows the 'HOST INFO' dialog box with the 'C-STORE DICOM' configuration screen. The left pane shows the 'Command' menu with 'C-STORE DICOM' selected. The main area displays fields for DICOM configuration: Transfer Syntax (Explicit VR Little Endian), HOST AE-Title (HOST), REGIUS AE-Title (KC_CSIH_V001), PDU Size (65536), Version Name (KC_CS1_1.00), UID (303.0 @-Series), Character Set (ASCII), Private Data (Not Send), Dataset Extension (OFF), and VR Check (OFF). Buttons for 'Save/Exit' and 'Cancel' are at the top right.

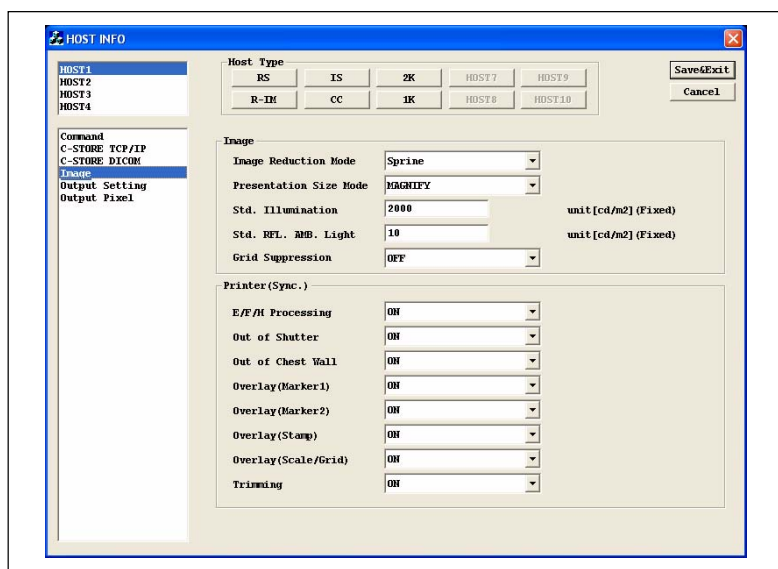
7. Set "DICOM" by referring to the table below.

Items to be set	Properties to be set
Transfer Syntax	Normally select the implicit VR little endian.
HOST AE-Title	Make sure to input the titles in discussion with the system manager of the facility.
REGIUS AE-Title	
PDU Size	Normally use the default. <ul style="list-style-type: none"> Default : 65536
Version Name	Displays implemented version "KC_CS_1.00". <ul style="list-style-type: none"> Unable to change
UID	Displays UID "303.@". <ul style="list-style-type: none"> Unable to change
Character Set	Specify the character set of the transmission data according to the host. <ul style="list-style-type: none"> ASCII : Alphabet and numeric. Latin1 : Alphabet and numeric including Latin characters.
Private Data	Not send : for other manufacturers' products. Send : for Konica Minolta products.
DataSet Extension	Normally leave it to "OFF". <ul style="list-style-type: none"> Refer to ""HOST INFO • C-STORE DICOM" Screen", 13-51 .
VR Check	Checks if the syntax complies with DICOM standard. If it does not comply, prohibits the data from being sent. Set it to "ON" if the other manufacturer's HOST can not accept the data that does not comply with DICOM.

8. When "Storage Commitment" of "Service Class" in the step.3 is set to "ON", select "N-ACTION TCP/IP", "N-ACTION DICOM", "N-EVENT-REPORT TCP/IP", and "N-EVENT-REPORT DICOM" in order from the lower left menu, and carry out the setting described in the step.5 and 7.

- Clicking [Import] displayed on the bottom right of the screen will initiate copying the setting made in step.5 and 7.

9. Select "Image" in the lower left menu.



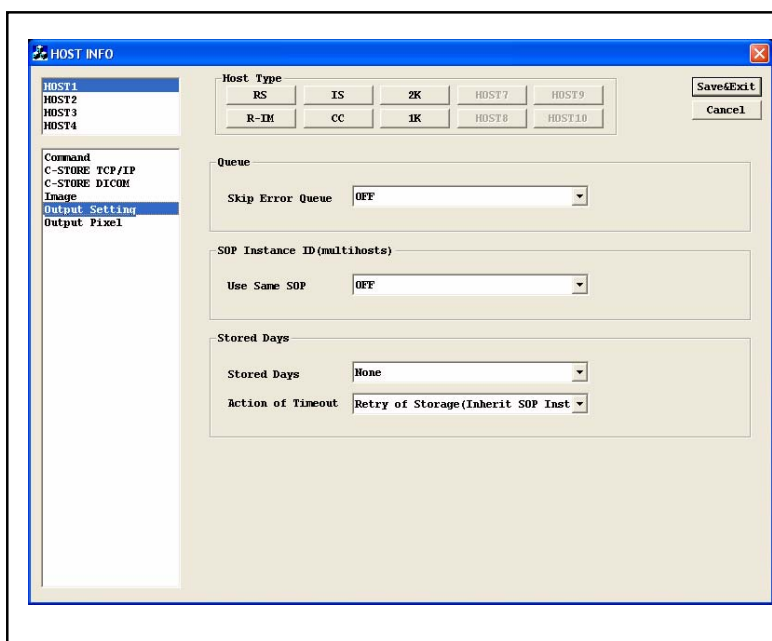
10. Carry out the setting of the image by referring to the table below.

Items to be set	Properties to be set
Image Reduction Mode	<p>Select the compression type when the image is sent compressed.</p> <ul style="list-style-type: none"> •Spline (default) •Decimate/Crop •Bilinear <p>If the default setting causes trouble, consult the manufacturer for instruction.</p>
Presentation Size Mode	<p>Select the display type requested to the host from the following.</p> <ul style="list-style-type: none"> • MAGNIFY • SCALE TO FIT • TRUE SIZE
Printer (Sync.)	<p>Reflects the print condition(image processing, overlay, etc.) that is set on "Detail Setting" screen to the output to the HOST.</p> <ul style="list-style-type: none"> • Items that are enabled by selecting "ON" will be reflected to the output to the HOST. • Default : "E/F'H Process", "Masking (Out of Shutter) and "Masking(Side of Chest)" are ON, and the rest is OFF.

"Stand. Illumination" and "Std. RFL. AMB. Light" are invalid for setting. Do not touch and leave the fixed value as it is.

11.

Select "Output Setting" in the lower left menu.



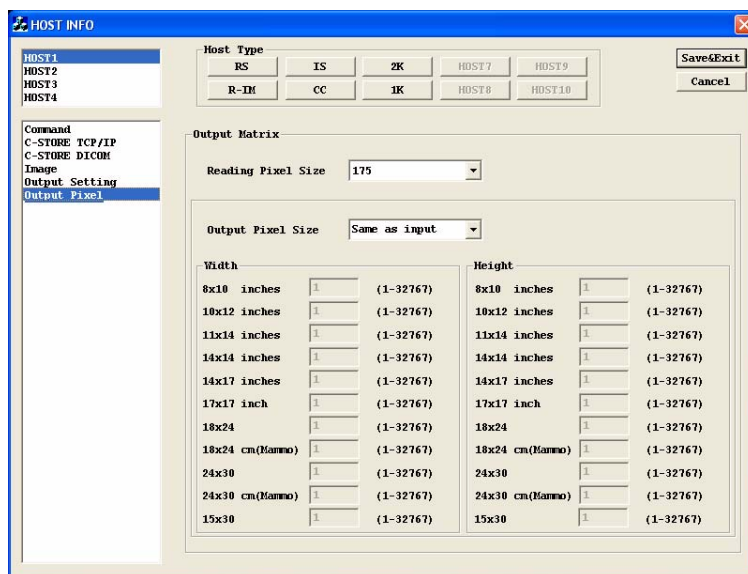
12.

Set "Output Setting" by referring to the table below.

Items to be set	Properties to be set
Queue	<p>Select an action when an error occurs during queue printing.</p> <ul style="list-style-type: none"> ON ... Skips the queue that incurred an error, and print the next queue. OFF ... Suspends printing of next queue until the error is reset.
SOP Instance ID (multi-hosts)	<p>Since the setting varies depending on the operation at the institute or host, setting should be made according to the instruction.</p>
Stored Days	<p>Since the setting varies depending on the operation at the institute or host, setting should be made according to the instruction.</p>

13.

Select the “Output Pixels” from the lower left menu.



14.

Set the “Output Pixels” for each read resolution by referring to the table below.

Items to be set	Properties to be set
Reading Pixel Size	Select the read resolution to be set. Selectable from “175”(μm), “87.5”(μm), “43.75”(μm), “50.0 (87.5-PCM)”(μm) ^{Note} , “25.0 (43.75-PCM)”(μm) ^{Note} .
Output Pixel Size	Select from “Read Sync”, “87.5μm”, “175μm”, “350μm”.

Note : Do not use “50.0 (87.5-PCM)”(μm), “25.0 (43.75-PCM)”(μm)

15.

After completing the input, click [Save & Exit].

Confirmation dialogue will be shown.

16.

Click [Yes].

Switches to "Service Tool" screen(Console).

5.7 Setting the RIS Information

How to set the RIS information varies depending on the system operation or system configuration at each institute.

In this paragraph, how to carry out the setting when the RIS is individually assigned to the patient/study and result as described in "[5.2.3 Setting the System Configuration\(RIS • Option\)](#)".

For further details how to set the RIS information, refer to "A.3 Set Up of RIS Information according to Type".

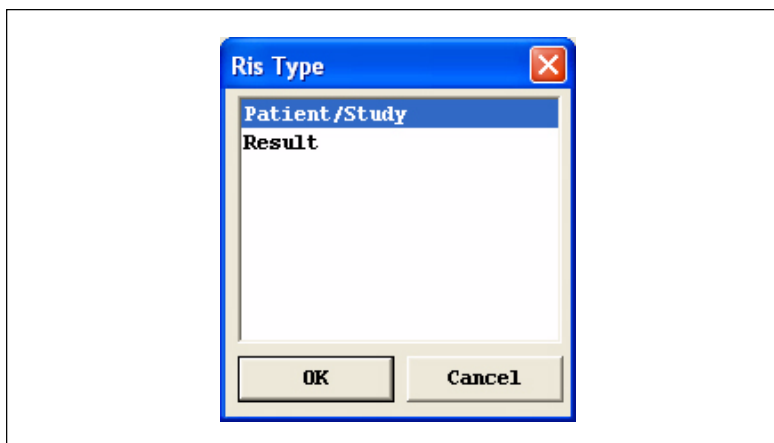
5.7.1 Setting Patient/Study

Set the operational properties when the CS-3 acquires the patient data from the RIS.

1. Click [RIS] of "Input/Output" of "Service Tool" (Console) screen.

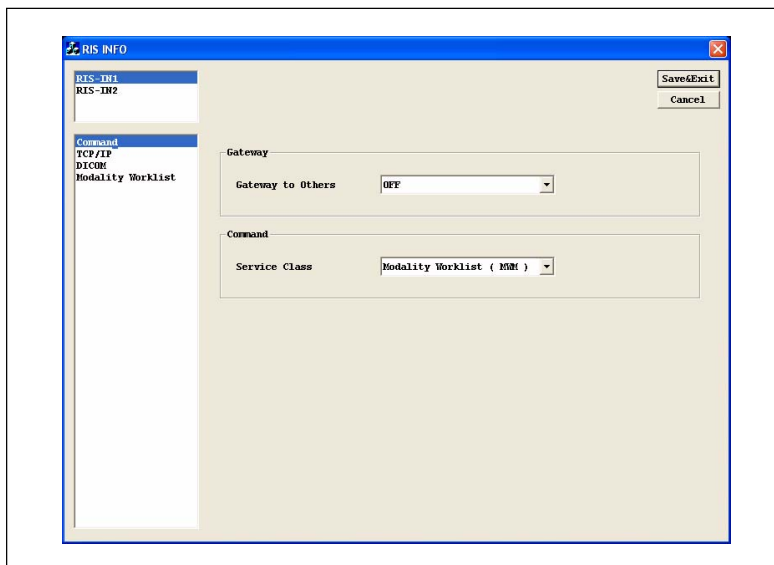
"RIS Type" screen will be shown.

- It will not be displayed if only either of Patient/Study or Result is registered.



2. Click [Patient/Exam] --> [OK].

"RIS INFO" screen will be shown.



3. Select the RIS name that will be set from the menu on the upper left column.

The names shown here are those set in "[5.2.3 Setting the System Configuration\(RIS • Option\)](#)".

4. Set "Command" by referring to the table below.

Items to be set	Properties to be set
Gateway to Others	Select "ON" when using any gateway program (program other than DICOM).
Service Class	<p>Select "Detached" or "MWM".</p> <ul style="list-style-type: none"> Upon selection of "MWM", an icon on the right will be shown on the "Exam Search" screen of the CS-1/CS-3 application, and enables the operator to touch it to initiate search of the patient data from the patient data base stored in RIS/IDS.



- Selecting "MWM" will add set items for "MWM" in the left menu.

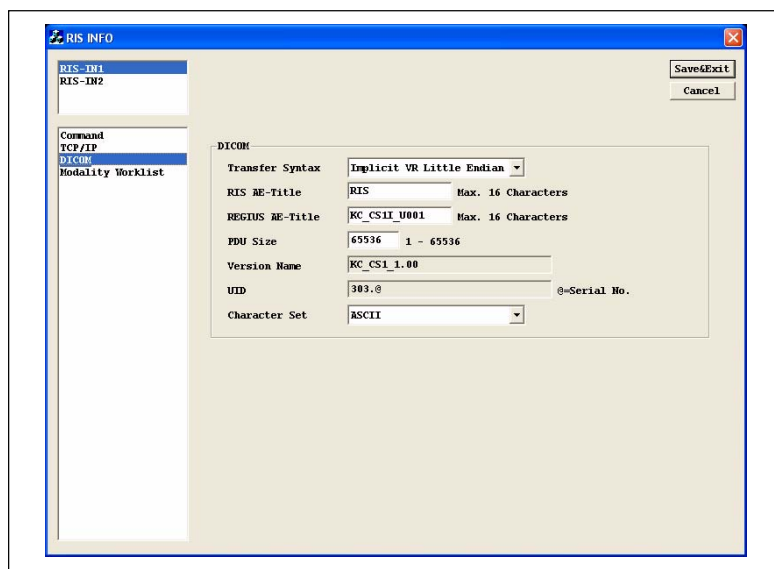
5. Select "TCP/IP" in the menu on the lower right column.

6. Set "TCP/IP" by referring to the table below.

Items to be set	Properties to be set
Host Name	Make sure to input the RIS properties in discussion with the system manager of the facility.
IP Address	
Port Number	
Timeout 1	<p>Sets the time-out of duration before the RIS replies to the data request sent from CS-3.</p> <ul style="list-style-type: none"> Change the setting if the default causes problem.
Timeout 2	<p>Among the settings of time-out of duration before the RIS replies to the data request sent from CS-3, this particularly set the time-out before the CS-3 receives the patient/examination data from RIS.</p> <ul style="list-style-type: none"> Only valid when the "Service Class" is set to "MWM".

Items to be set	Properties to be set
Interval 1	Sets the interval when implementing the auto-search of the patient data. <ul style="list-style-type: none"> Only valid when the “Service Class” is set to “MWM”.

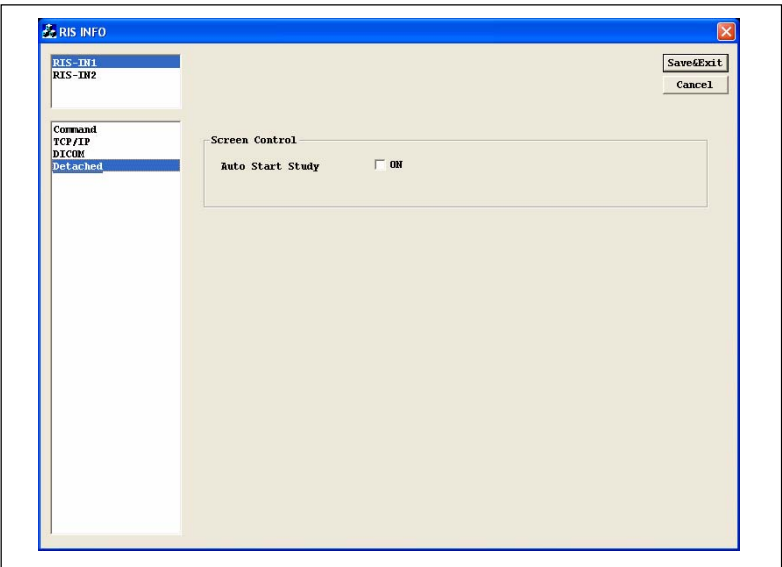
7. Select “DICOM” in the menu on the lower left column.



8. Set “DICOM” by referring to the table below.

Items to be set	Properties to be set
Transfer Syntax	Normally select the implicit VR little endian. When the “Service Class” is set to “Detached”, unable to set this item.
RIS AE-Title	Make sure to input the printer properties in discussion with the system manager of the facility.
REGIUS AE-Title	
PDU Size	Normally use the default.
Version Name	Displays the implemented version “KC_CS1_1.00”. <ul style="list-style-type: none"> Unable to change.
UID	Displays UID. <ul style="list-style-type: none"> Unable to change.
Character Set	Normally use the default.

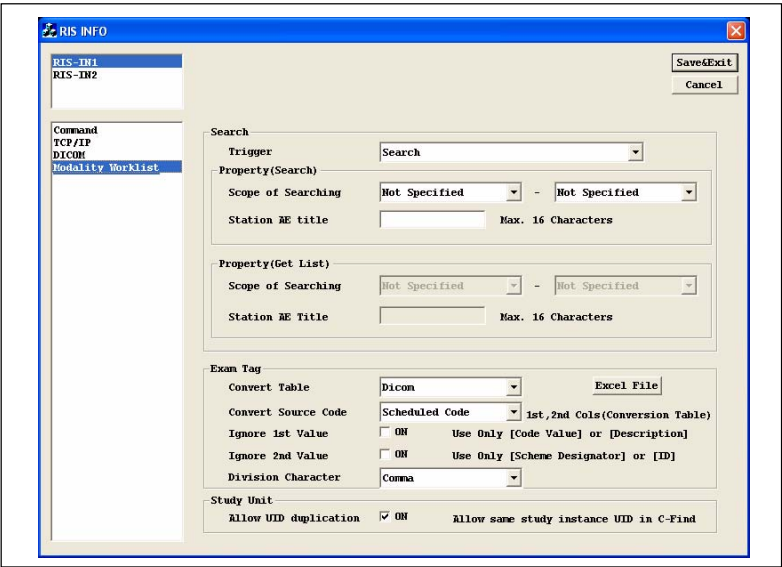
9. When “Detached” is selected for “Service Class” in the step.4, select “Detached” in the lower left menu.
- When “MWM” is selected, proceed to the step.11.



10. Set “Detouched” by referring to the table below.

Items to be set	Properties to be set
Auto Start Study	Check [ON] when the exam is to be automatically implemented upon receipt of reservation on the initial screen.

11. When “Modality Worklist” is selected for “Service Class” in the step.4, select “MWM(Modality Worklist)” in the lower left menu.



12. Set the searching method of MWM by referring to the table below.

Items to be set	Properties to be set
Search	Set the condition to search Exam/Patient Information from the RIS.
Exam Tag	Select the method to convert the RIS study code to the CS-3 exam tag. Also writes or reads the conversion table in or from the file.

- Refer to "A.3 Set Up of RIS Information according to Type" A-5 for the procedure to set the search condition.
- Refer to "A.4 Conversion of Exam. Keys" A-22 for the procedure to create the exam tag conversion table.

13. After completing the input, click "Save & Exit".

Confirmation dialogue will be shown.

14. Click [Yes].

Switches to "Service Tool" screen(Console).

When "MWM" is selected

Items and characters that can be input as a search key on the "Patient Info" screen are defined by the setting of the server (Patient Info DB). Therefore, when "MWM" is selected for the "Service Class", discuss with the system administrator, and confirm the search condition to the user.

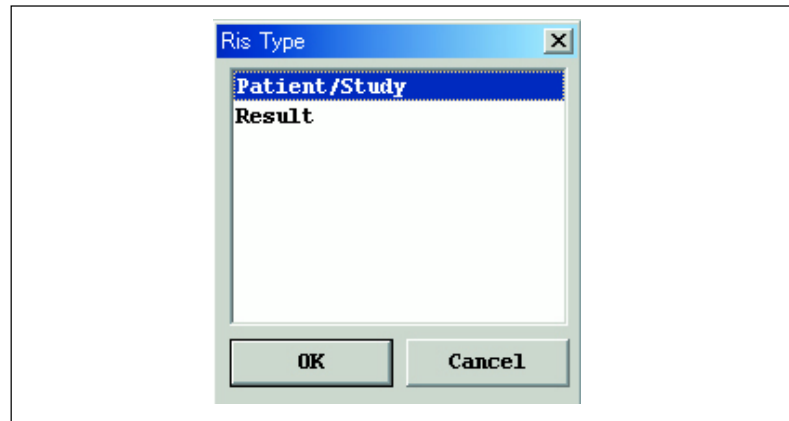
5.7.2 Setting the Result

Carry out the settings for sending the examination result from the CS-3 to the RIS.

1. Click [RIS].

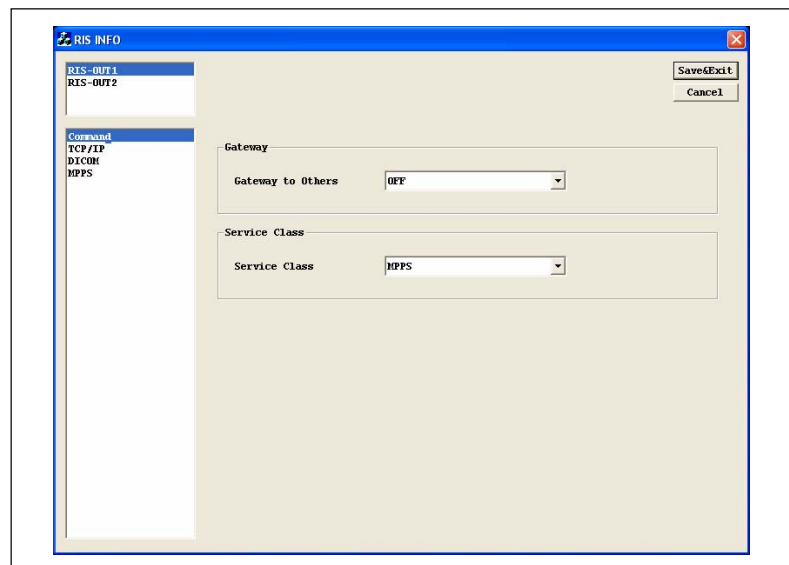
“Ris Type” screen will be shown.

- It will not be displayed if only either of Patient/Study or Result is registered.



2. Click [Result] --> [OK].

“RIS INFO” screen will be shown.



3. Select the RIS name that will be set in the upper left menu.

The names listed here are those set in ["5.2.3 Setting the System Configuration\(RIS • Option\)"](#).

4. Set the “Command” by referring to the table below.

Items to be set	Properties to be set
Gateway to Others	Set to “ON” when gateway program (protocol other than DICOM) is used.
Service Class	Select “Detached” or “Performed Procedure Step (MPPS)”.

Items listed in the lower left column will vary depending on the selection of the “Service Class”.

5. Select the “TCP/IP” in the lower left menu.

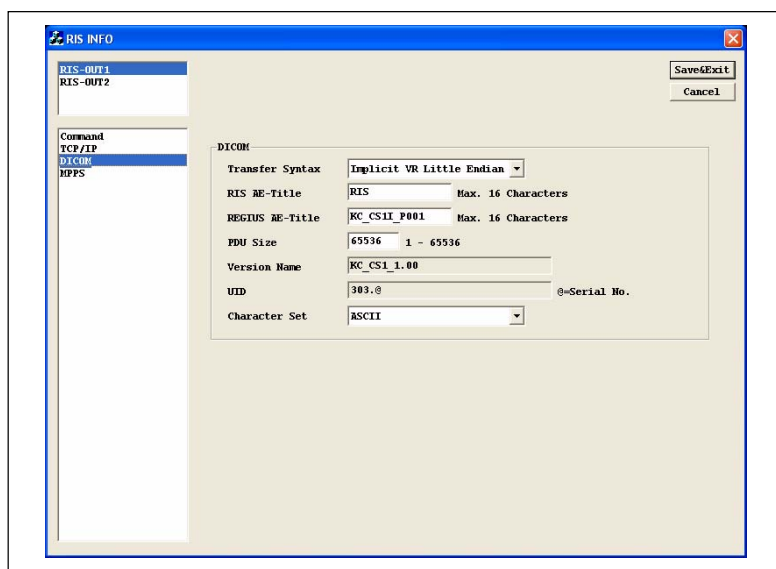
The screenshot shows the 'RIS INFO' window with the 'TCP/IP' tab selected. The left-hand menu has 'TCP/IP' highlighted. The configuration fields are as follows:

- Host Name: RIS1 (Max. 32 Characters)
- IP Address: 192.168.20.90
- Port Number: 5600
- Timeout 1: 60000 [msec], receiving timeout
- Interval 1: 1000 [msec], outputting interval

6. Set “TCO/IP” by referring to the table below.

Items to be set	Properties to be set
Host Name	Make sure to input the RIS properties in discussion with the system manager of the facility.
IP Address	
Port Number	
Timeout 1	Set the time-out of duration before the CS-3 receives the response from the RIS against the request signal. Change only when a problem is observed by default.
Interval 1	Use the default.

7. Select “DICOM” in the menu on the lower left column.

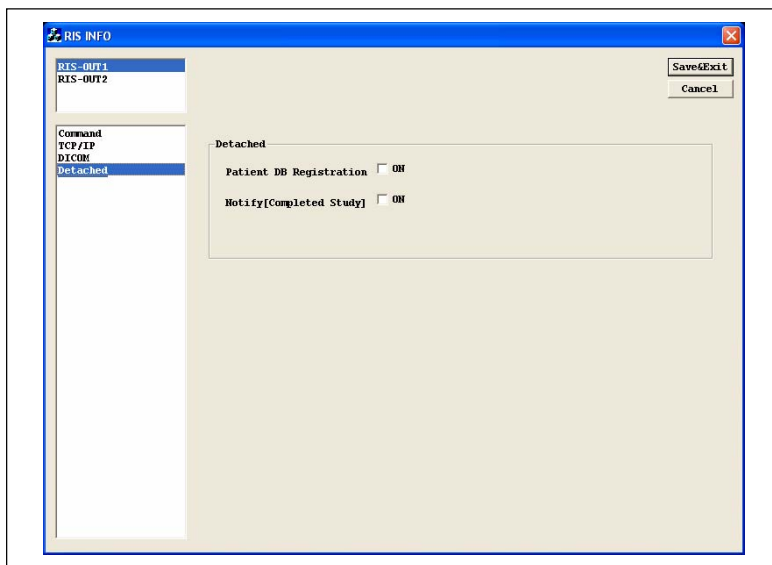


8. Set “DICOM” by referring to the table below.

Items to be set	Properties to be set
Transfer Syntax	Normally select the implicit VR little endian. When the “Service Class” is set to “Detached”, unable to set this item.
RIS AE-Title	Make sure to input the printer properties in discussion with the system manager of the facility.
REGIUS AE-Title	
PDU Size	Normally use the default.
Version Name	Displays the implemented version “KC_CS1_1.00”. • Unable to change.
UID	Displays UID. • Unable to change.
Character Set	Normally use the default.

9. When “Detached” is selected for “Service Class” in the step.4, select “Detached” in the lower left menu.

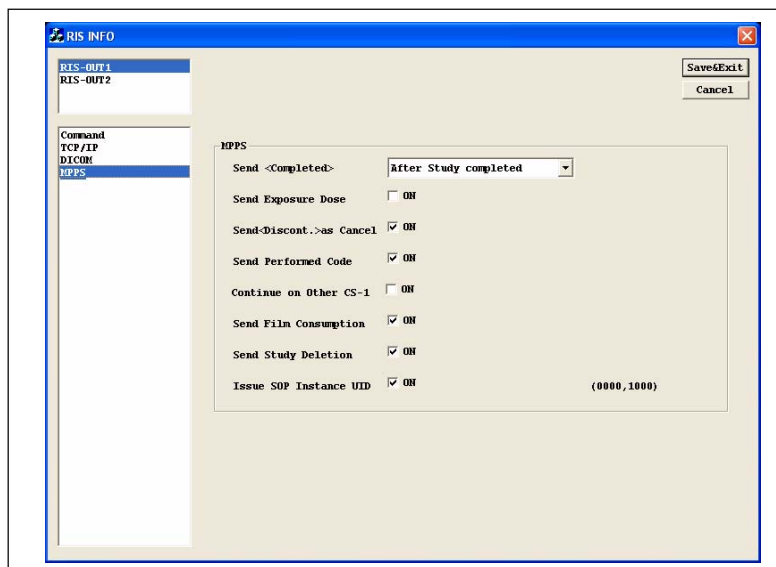
- When “MPPS” is selected, proceed to the step.11.



10. Set “Detouched” by referring to the table below.

Items to be set	Properties to be set
Patient DB Registration	<p>Check [ON] to register the patient info revised on the CS-3 with the DB on the RIS.</p> <ul style="list-style-type: none"> • When it is [OFF], patient info newly input on the CS-3 only will be registered with the DB on the RIS.
Notify [Completed Study]	Check [ON] to report the exam end to the RIS.

11. When “MPPS” is selected for “Service Class” in the step.4, select “MPPS” in the lower left menu.



12. Set the “MPPS” by referring to the table below.

Items to be set	Properties to be set
Send <Complete>	<p>Select from below a timing by which the end signal is sent to the RIS.</p> <ul style="list-style-type: none"> Not to send <p>Select this to send the end signal from devices other than the CS-1.</p> <ul style="list-style-type: none"> When exposure ends <p>Send the end signal when the [Exam End] button is touched.</p> <ul style="list-style-type: none"> When send-out completed <p>Send the end signal when the image is completely output to the host or printer.</p>
Send Exposure Dose	<p>Check this to include the X-ray dose information in the resulted study data. (default : ON)</p> <ul style="list-style-type: none"> Valid only when “ID-680X” is connected.
Send<Discont.>as Cancel	<p>When the examination is suspended without reading any of the image for the order received from the RIS, checking “ON” enables other CS-1 to implement the examination for this suspended order. (default : ON)</p>
Send Performed Code	<p>When the examination tags received from the RIS are changed on the CS-1, checking “ON” enables to send the altered examination tags to the RIS. (default : ON)</p>
Continue on Other CS-1	<p>Check “ON” to implement one examination on several CS-1s (default : OFF)</p>
Send Film Consumption	<p>Check “ON” to send the film consumption (sheets) to the RIS. (default : ON)</p>

Items to be set	Properties to be set
Send Study Deletion	Check “ON” to delete the examination from reservation list on the RIS when [Delete] button is touched to delete the image on the “Exam List” screen . (default : ON)
Issue SOP Instance UID	Normally leave it as [ON].

13. After completing the input, click “Save & Exit”.

Confirmation dialogue will be shown.

14. Click [Yes].

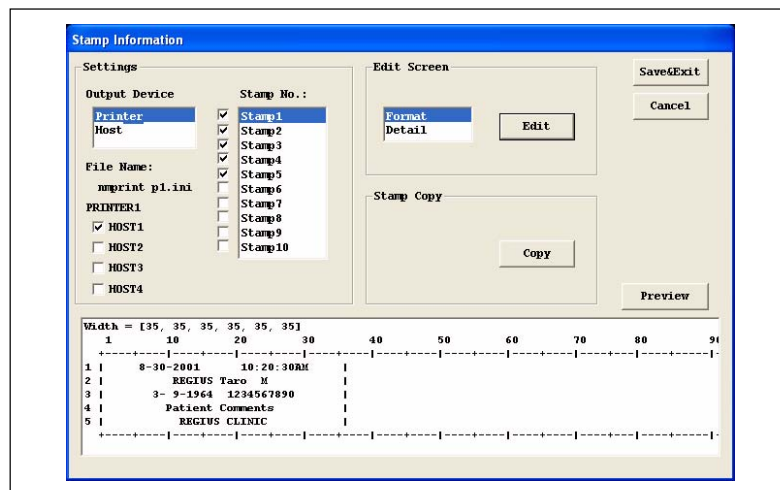
Switches to "Service Tool" screen(Console).

5.8 Setting the Stamps

Set the stamp in discussion with the system manager of the facility. The items to be set here is equivalent to those available to the users on the screen. It is not necessary to carry out the setting at the time of installation if the user sets these later.

1. Click [Stamp] of [Overlay] on “Service Tool” (Console) screen.

“Stamp Setting” screen will be shown.



2. Select the destination and stamp number that shall be enabled.

Items to be set	Properties to be set
Devices List	<p>Select the destination to be edited.</p> <ul style="list-style-type: none"> • Select from “Host” and “Printer”. However, when the Printer 1 is set to “Virtual Registration”, its registered name as device name will be displayed.
Host Name	<p>Ticking the check box located beneath the display name of the "Printer 1" sets the stamp info displayed on the right to be interlocked with the printer.</p> <ul style="list-style-type: none"> • “Overlay” of the “HOST INFO/Image” screen turns ON.
Stamp No,	<ul style="list-style-type: none"> • Selects maximum 10 different types of stamp for each destination. • The stamp No. that is enabled will be also available on the CS-1/CS-3 application. • Stamp 1~5 are available by default. • To use the existing stamp setting, click the stamp No. on the “Copy” screen to copy its setting.

3. Select “Stamp Format” on the Screen Selection menu, and click [Edit].
 “Stamp Format” will be shown.

4. Set the stamp in details by referring to the table below.

Items	Properties
Total Lines	Input the number of lines for stamp. (1~6 lines)
Width	Input the width (mm) where the stamp is displayed.
Font Size per Line	Input the height (mm) of character for each line.
Alignment	Select from Left-Justify and Center(default).
[Refresh]	Displays the sample of current setting. Use this to check the setting when changed.
[Preview]	Displays the sample in bit map. Use this to check the character size, etc.

Note : “Total Lines”, “Width” and “Font Size per Line” can be set independently. Therefore, it may happen that the character line does not fit to the stamp area depending on the setting. For those items such as “Patient Name”, “Patient ID”, etc. that are not fixed in character count, check that all characters presuming the longest can fit to the stamp area.

5. After completing the change of display setting, click [OK] --> [YES].
 The screen switches to “Stamp” setting screen.

- Click [Cancel] --> [Yes] to leave the setting unchanged.

6. Select [Detail] from “Edit Screen” menu, and click [Edit].

“Set Stamp” will be shown.

No	Item	Position Row	Column	Length (0:var.)	Options	Sample (41:Fixed Str.)
1	<input checked="" type="checkbox"/> Institution Name	5th 1	1	30	Undefined	REGIUS CLINIC
2	<input type="checkbox"/> Department Name	5th 1	2	10	Undefined	Radiology
3	<input type="checkbox"/> Requesting Service	2nd 1	1	0	Undefined	Orthopedics
4	<input checked="" type="checkbox"/> Image Date	1st 1	1	0	"Date-MS(M- D-YYYY)"	20010830
5	<input checked="" type="checkbox"/> Image Time	1st 1	17	0	"Time(H- M- S)"	102030
6	<input checked="" type="checkbox"/> Patient ID	3rd 1	3	16	Undefined	1234567890
7	<input checked="" type="checkbox"/> Patient's Name	2nd 1	1	20	"Name"	REGIUS Taro
8	<input type="checkbox"/> Other Patient ID	2nd 1	1	20	Undefined	0T1234567890
9	<input type="checkbox"/> Other Patient Names	2nd 1	1	20	"Name"	REGIUS HANA
10	<input checked="" type="checkbox"/> Patient's Sex	2nd 1	3	0	Undefined	M

Width = [35, 35, 35, 35, 35, 35]

1 10 20 30 40 50 60 70 80 90 100

1 | 8-30-2001 | 10:20:30AM |

2 | REGIUS Taro M |

3 | 3-9-1964 1234567890 |

4 | Patient Comments |

5 | REGIUS CLINIC |

Refresh Preview

7. Carry out the setting of stamp by referring to the table below.

Items	Setting
No. (No.1~60)	<p>Select Enable/Disable for each item. The item not selected (disabled) will not show on the screen.</p> <ul style="list-style-type: none"> The items on No.41 onward is for setting of special characters. Specially for imputing the title, etc.
Item	Select the item from combo box. (refer to "A.2 Stamp Item Selection List" A-4).
Position Row	Specifies the starting line of display (vertical) by line (line counts from the top).
Column	<ul style="list-style-type: none"> Specifies the starting raw of display (horizontal) by raw (character counts from the left end). When several items are set for one line, the item with lesser numbers input will be displayed on the left. When several items are specified by the same number, the items with lesser No. will be displayed on the left.
Length	Specify the display width of item by number of characters.
Options	Select the display type when “Free-Selection for Each Item” is selected for “Specified Name display” in the step.4 . (refer to "A.2 Stamp Item Selection List" A-4).
Sample	<p>No.1~40 : Input the sample characters in each item that shall be exhibited on sample display(Reload) and bit map(Preview) display.</p> <p>No.41~60 : Input the characters free from the item, which will displayed on the stamp.</p>

8. After completing the change of each item, click [Exit] --> [YES].

The screen switches to “Stamp” setting screen.

- Click [Cancel] --> [Yes] to leave the setting unchanged.

9. After completing the input, click [Save & Exit].

Confirmation dialogue will be shown.

10. Click [Yes].

- Switches to "Service Tool" screen(Console).

5.9 Setting the Single Barcode Reader

Implement the settings shown below when the patient ID barcode shall be read using the single barcode reader that is intended for reading the barcode affixed to the cassette.

- Refer to "[4.3.2 Connecting the barcode Reader \(multiple\)](#)" 4-13 for installation procedure of the single barcode reader.

1. Click [Layout] of the "Servie Tool (Console)" screen.
"Screen Layout" screen will be displayed.
2. Click [Display].
"DISPLAY INFO/Disp Cont" screen will be shown.
3. Select 'Cursor] in the lower left menu.
"DISPLAY INFO/Cursor" screen will be shown.
4. Tick the check box for "Search Reserved Study" of "Receipt Screen", and input in the "Patient ID digits" the number of places for the patient ID barcode.
5. Click [Save & Exit] after input and click [YES] of confirmation dialogue.
Returns to the "Service Tool (Console)" screen.



Chap.6

Verification and Back Up of Set Up Data

Reading the solid density image, check that the image read by the cassette reader is free from any defect.

Then, back up the set up data, and complete the installation work.

Blank Page

6.1 Checking the Image

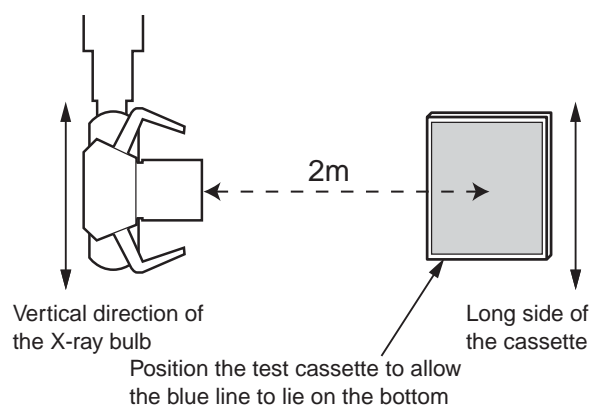
Reading the exposed solid density by REGIUS 170, check the image using test tools.

<Important>Refer to the CS-3 Operation Manual for routine mode operation.

1. Press the power button, and start the CS-3.
CS-1/CS-3 application starts, and the initial screen will be shown.
2. Press the operation button, and start the REGIUS 170 to be checked.
3. On the CS-3 operation unit, input a dummy patient information for the image check purpose, then touch [Perform].
“Select Body Parts/Condition” screen will be shown.
4. Touch [170] on the “Reader Type”.
5. Touch [TEST] of the Rough Classification, then touch [test1] of exposure condition.
6. Touch [OK].
“Exam. Check” screen will be shown.
7. Expose the test cassette to produce solid density.

Exposure to be made under the condition :

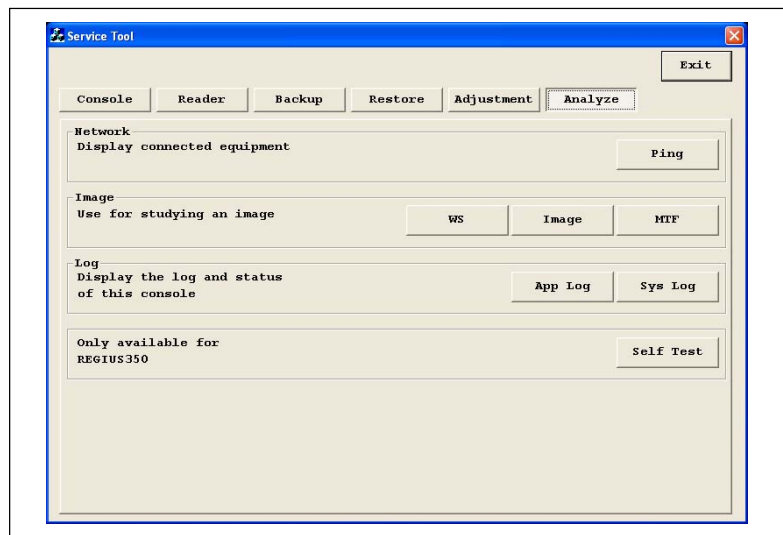
- Bulb Voltage - 80kV, 10mAs / Distance - 2m
- Align the long side of the cassette with the vertical direction of the X-ray bulb.



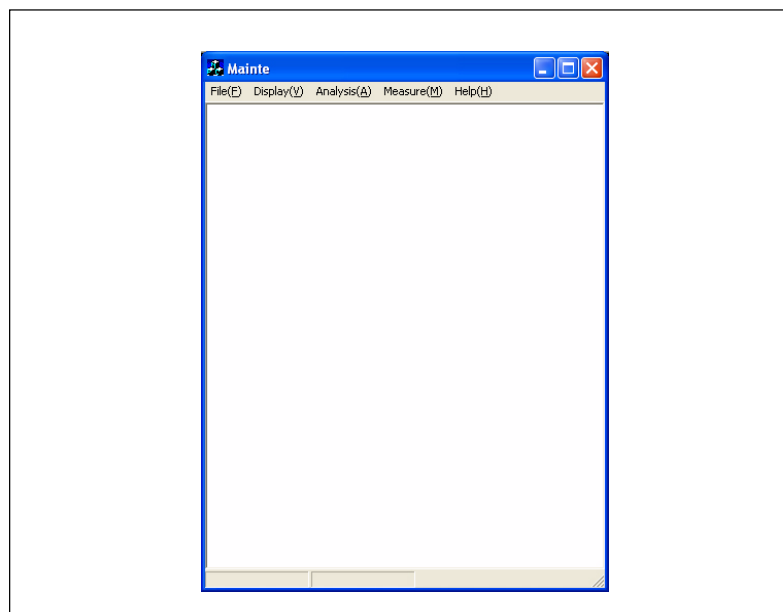
8. When the system is set to “barcode Registration”, read the barcode of the cassette that is exposed. When it is set to “Manual Registration”, touch the order (indicated as “Konica-TEST1”) on the screen.
In the case of “barcode Registration”, barcode of the cassette will be shown on the order bar. For “Manual Registration”, it indicates as “1st”.
9. Insert the cassette into the REGIUS170.

As the image in the cassette is read, the image is displayed on the screen of operation unit.

10. Touch [OK].
11. Touch [Exam. Completed].
12. Returns to the initial screen.
13. Touch [KONICA MINOLTA].
System menu will be shown.
14. Touch [Utilities] to start the "Service Tool".
15. Touch [Analyze].
"Analyze" screen will be shown.



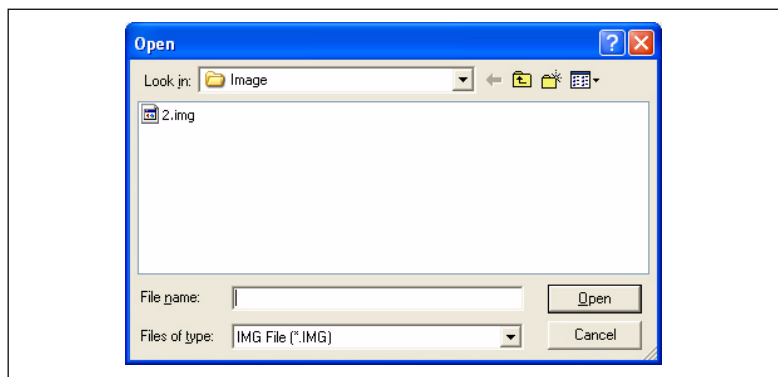
16. Click [Image].
Image-check software will start.



17.

Select [Open (O)] in the [File (E)] menu.

[Open] dialogue will be shown.



18.

Select "1.img", and touch [Open].

Solid density image that is read by the REGIUS 170 will be displayed on the screen of image-check software.

- Select the latest file(with the largest number) if several image file is listed in the "Open File" dialogue.

19.

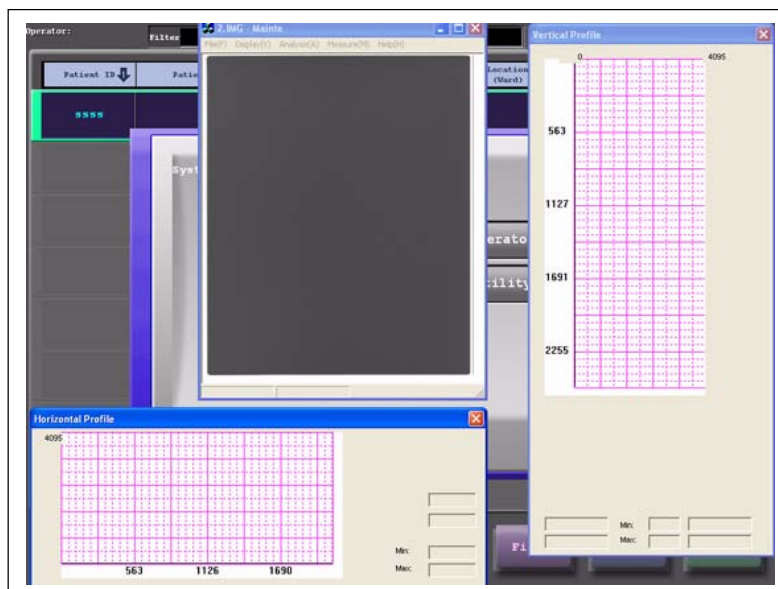
Select [Density • Contrast (C)] in the [Display (V)] menu.

"Contrast" screen will be shown.

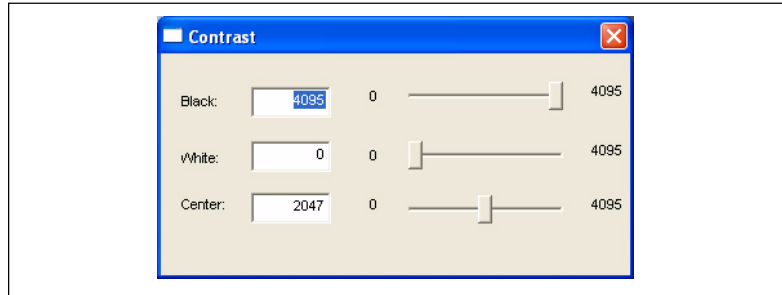
20.

Select [Profile(Horizontal) (S)] in the [Analysis (A)] menu.

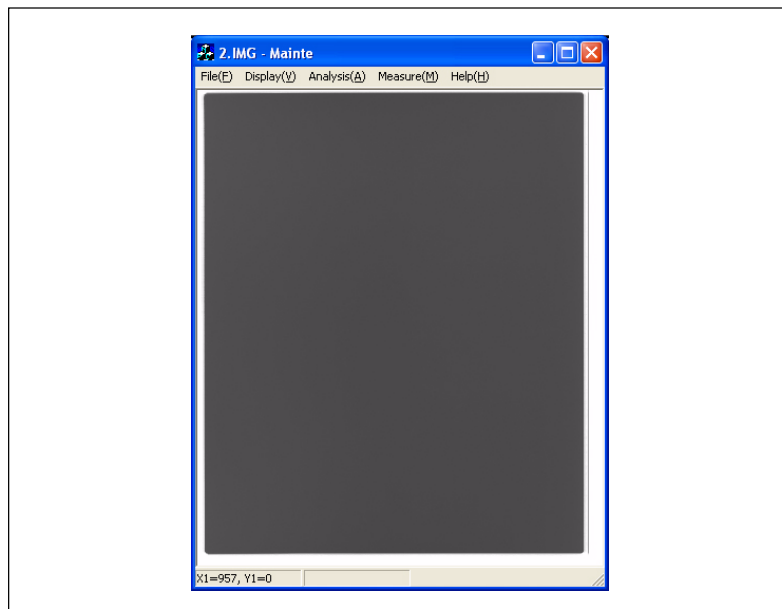
"Horizontal Profile" screen will be shown.



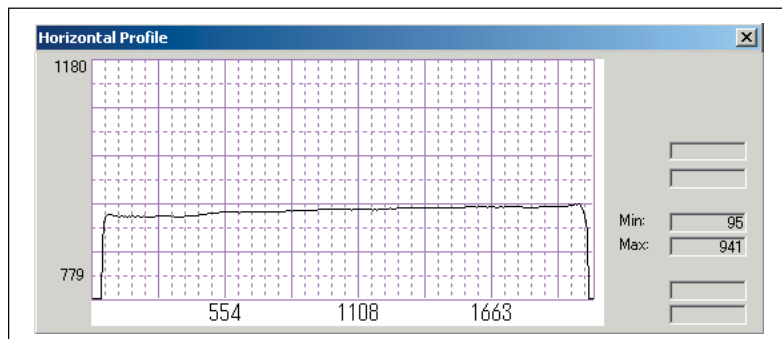
21. Adjust the slider bar so that the difference between “Black” and “White” on the “Contrast” screen becomes approximately 400 steps.



22. Drag the slider of the “Center” to right and left so that the unevenness of the image becomes most evident.
23. Using a yellow cross cursor, select the entire image tracing its border.



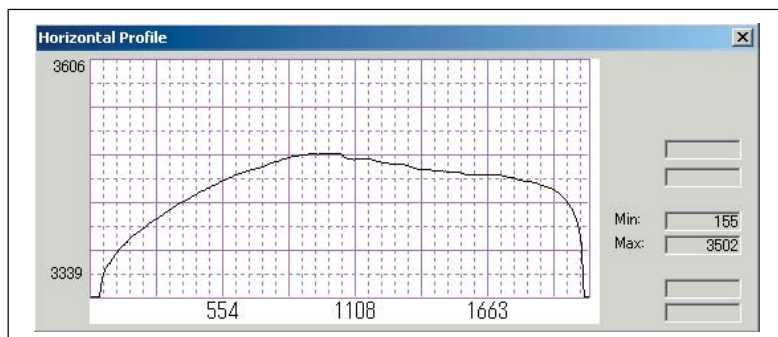
24. Horizontal profile of the area that is enclosed by the cross cursor will be displayed on the “Horizontal Profile” screen.



25. Check that the horizontal profile is almost flat.

If the image correction is not appropriate, this horizontal profile curve will show a mountain shape.

ex) Profile with no correction.



26. Select [Exit (X)] in the [File (E)] menu.

Closing all windows, and returns to the "Service Tool" screen.

27. In a same manner, check the image read by the rest of all REGIUS 170s.

If a steep slope or winding is found in the horizontal profile, it may mean there is an abnormality on the REGIUS 170. Take necessary action by referring to the REGIUS 170 Service Manual.

6.2 Back Up of the Set Up Data

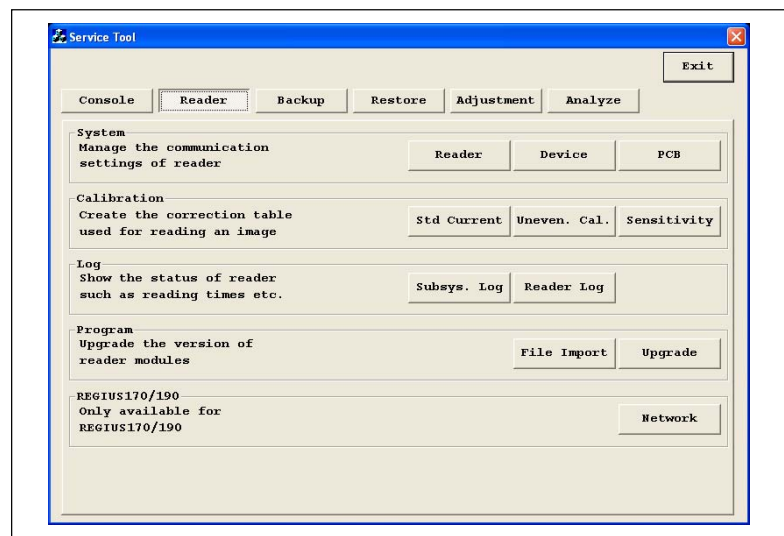
After completing the image check of the REGIUS 170, back up the set up data following the procedures below, and complete the installations.

<Important>When a sytem reader is also connected, before backing up the data, carry out the set up and calibration of the dedicated reader. Refer to "[Chap.9 Calibrating the Dedicated Reader](#)".

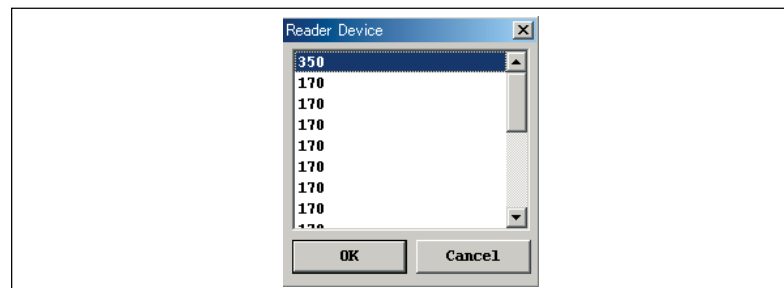
6.2.1 Back Up of Reader Set Up Data

Uploading the various set up data, correction data that is saved in the connected readers to the CS-3, and save them in the CS-3.

1. Using a mouse or touch panel, open the "REGIUS Service Screen".
Refer to "[1.6.1 Service Tool Screens](#)" for the procedures to open the "REGIUS Service Screen".
2. Click [Service Tool].
"Service Tool" screen will be shown.
3. Click [Reader].
"Reader" screen of the Service Tool will be shown.



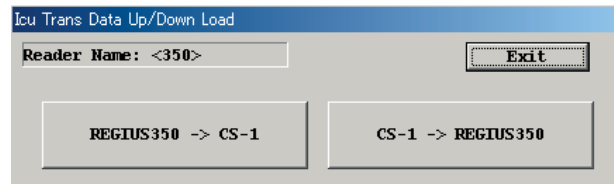
4. Click [PCB].
"Reader Device" screen will be shown.



5. Select the reader whose set up data shall be backed up.

When the selected reader is a dedicated reader, "Icu Trans Data Up/Down Load" screen will be shown. When it is a REGIUS 170, "PCB" screen will be shown.

When a dedicated reader is Selected



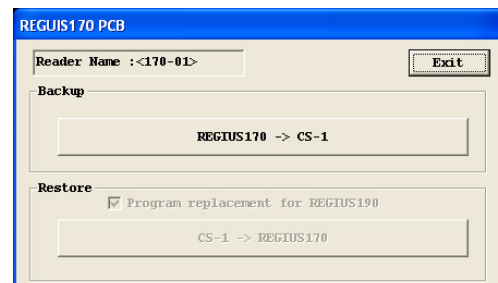
1. Click [REGIUS 350 - > CS-1] of "Icu Trans Data Up/Down Load" screen.

The set up data will be uploaded to the CS-3 from the reader.

2. Touch [Exit].

"Icu Trans Data Up/Down Load" screen closes, and switches to the "Reader" screen.

When REGIUS 170 is Selected



1. Click [CS-1 - > REGIUS 350] of "PCB" screen.

The set up data will be uploaded to the CS-3 from the reader.

2. Touch [Exit].

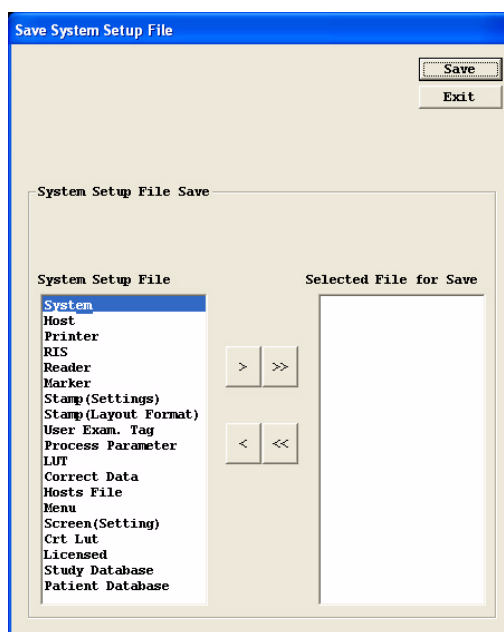
"Change Board" screen closes, and switches to the "Reader" screen.

Repeat the step3 onward in "6.2.1 Back Up of Reader Set Up Data", and back up the set up data on all REGIUS 170s on the CS-3.

6.2.2 Back Up of CS-3 Set Up Data

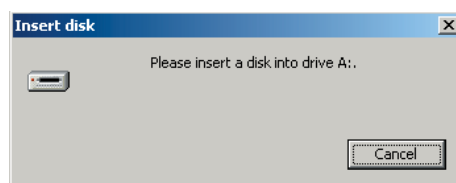
<Important>Using the floppy disk on which a specific CS-3 has been backed up, you can restore the same set ups on the other CS-3. However, note that an error will occur if the restored CS-3 is interfaced to the same network as the original because the set ups unique to the original CS-3 are also restored on the other CS-3. If such happens, disconnect the restored CS-3 from the network, and set up the CS-3 uniquely from others.

1. Click [Backup] of the “Service Tool” screen.
“Backup” screen of the Service Tool will be shown.
2. Click [System].
“System Setup File Save ” screen will be shown.



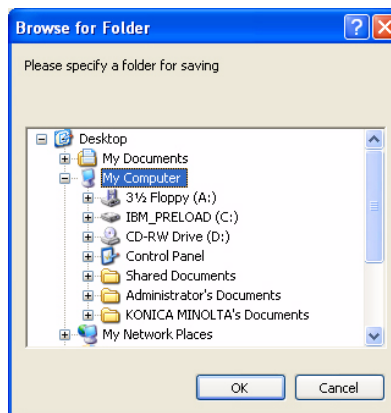
3. Click [>].
4. Click [Save].

A message prompting an insertion of the disk into drive “A” will be shown.



5. Insert a floppy disk into the floppy disk drive.

“Browse for Folder” dialogue will be shown.



6. Check that “3-1/2 Floppy (A:)] is selected, click [OK].

Confirmation screen will be shown.

7. Click [Yes].

Saving of the CS-3 set up data will start.

Progress will be indicated on “Saving” message while saving continues.

Upon completion of saving, a message to inform completion will be shown.

8. Click [Yes].

Returns to “Browse for Folder” dialogue.

9. Click [Cancel].

Returns to “System Set Up Save” screen.

10. Click [Exit].

Confirmation dialogue will be shown.

11. Click [Yes].

Returns to the “Service Tool” screen.

Implementing the above procedures will complete the back up for one CS-3.
When several CS-3s are set up, implement the back up of set up data for each CS-3.

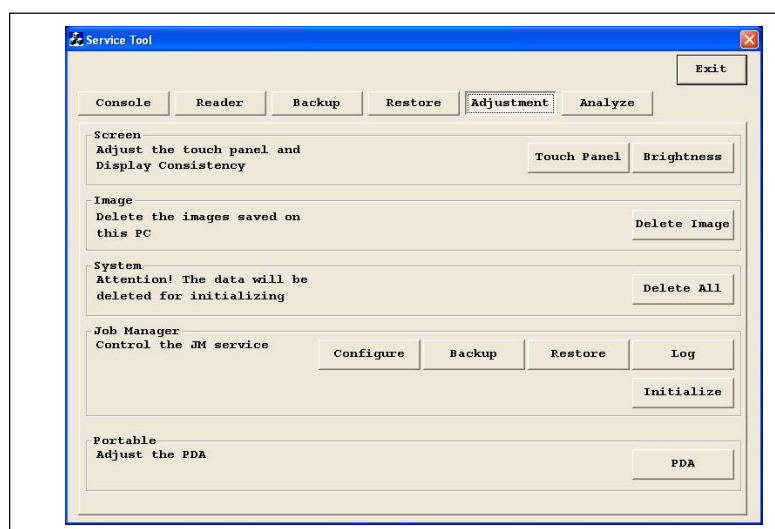
6.2.3 Deleting the Image Data

In the last, delete the image data for check and adjustment of the reader by operating the CS-3.

<Important>Those image data that is in queue to printer or host shall not be the target data to be deleted. Deletion should be carried out after confirming that all image data has been output.

1. Click [Adjustment] of the “Service Tool”.

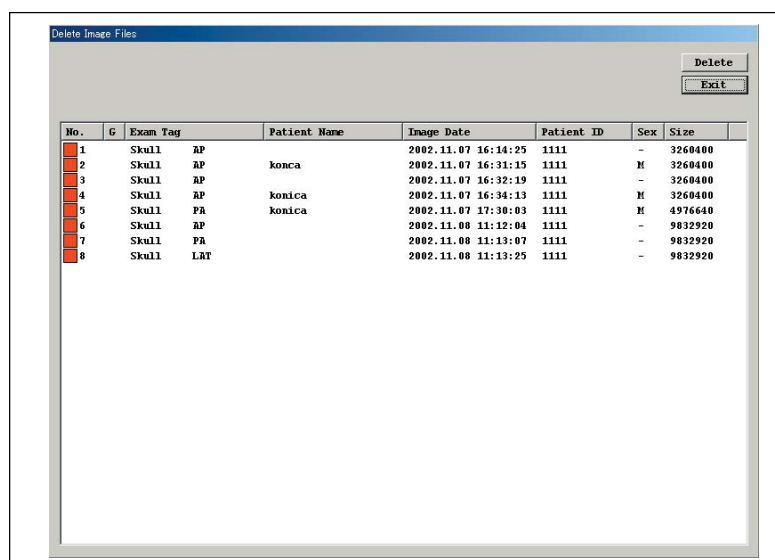
“Adjustment” screen of the Service Tool will be shown.



2. Click [Delete Image] of “Image”.

Browsing images stored in the CS-3, and “Delete Image Files” screen will be shown.

<Important>Images in the queue to printer or host can not be listed in this window.



3. Click the first file in the top, and keep pressing [Shift] key, click the last file in the bottom.
All files will be selected.
4. Click [Delete].
Confirmation screen will be shown.
5. Click [Yes].
A message indicating “Deleting ...” will be shown while deleting. Upon completion, a message to inform deletion is completed will be shown.
6. Click [Yes].
Returns to “Delete Image Files” screen.
7. Check that there is no image file left in the list, and click [Exit].
Confirmation screen will be shown.
8. Click [Yes].
Returns to “Service Tool” screen.
9. Click [Exit].
Returns to “REGIUS Service Screen”.
10. Click [Shutdown], and turn off the power of the CS-3.

In a same manner, delete the image data on all CS-3s that implemented the reading of images.



Chap.7

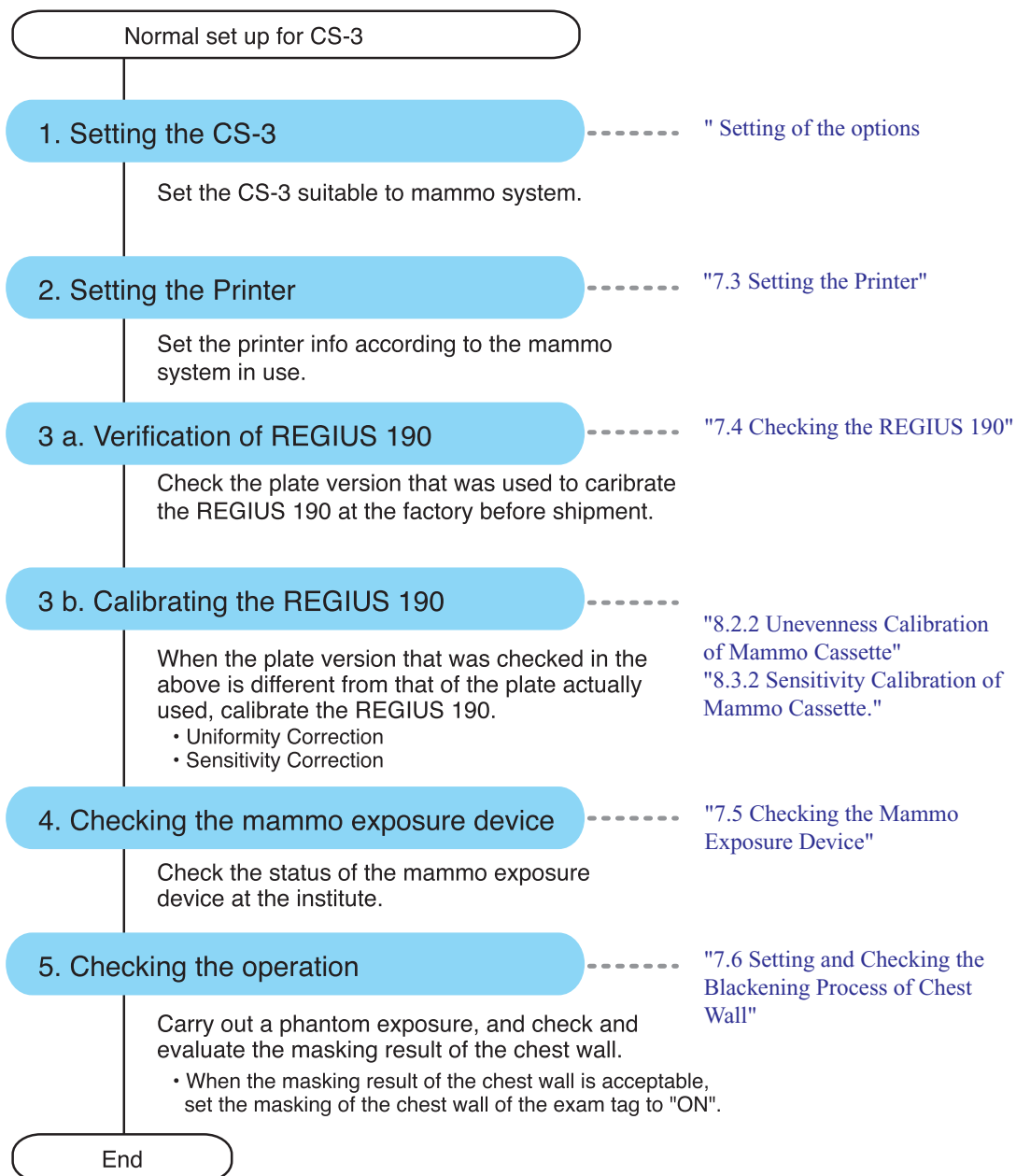
Set Up & Adjustment of Mammo System

In this chapter, how to set up and adjust the mammo system using REGIUS 190 is described.

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7.1 Set Up of Mammo System

To set up the mammo system using a combination of newly-developed high sharpness plate and high density film dedicated for mammo images requires following procedures in addition to the normal set up.



The setting other than those described in the above is same for normal setting. Please follow the normal setting procedure described in this manual.

7.2 Setting the CS-3

Setting of the options exclusive to mammo use on the CS-3 is described below.

1. Start up the CS-3 and start the "Service Tool" from the "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" for the procedures to open the "REGIUS Service Screen".
2. Click [System Info] of [System].
"SYSTEM INFO/Institute" screen will be shown.
3. Select [System (option 2)] in the lower left menu.
"SYSTEM INFO/System (option 2)" screen will be shown.
4. Tick "YES" box for "43.75 μ m" reading.
5. Tick [YES] box for "Alignment of Brest" when the mammo image of both breasts are printed on a single film.
6. Click [Save & Exit] and then [YES] of the confirmation dialogue.
Returns to the "Service Tool (Console)" screen.

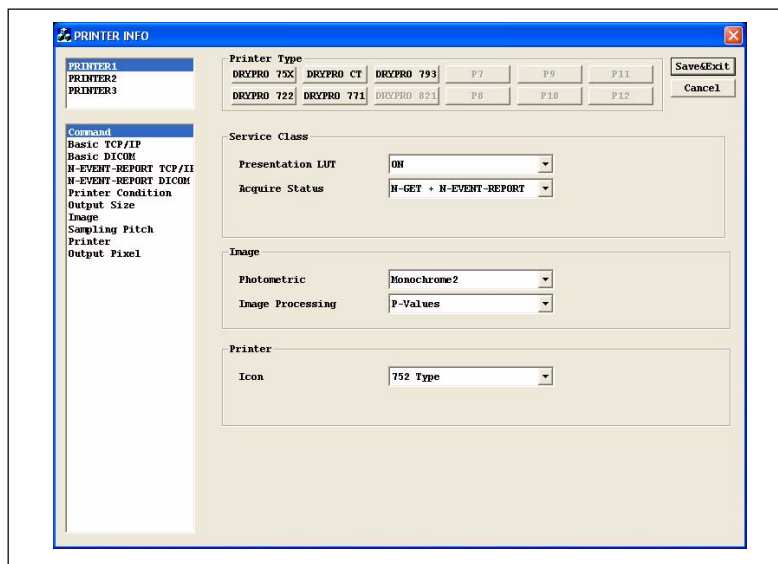
7.3 Setting the Printer

When the mammo system is configured using the printers, the printer settings are different depending on the printer type which comprises the mammo system. In this section, setting procedures of the printer for mammo system are described in two parts, one is for DRYPRO 793 and the other is for DRYPRO 751/752.

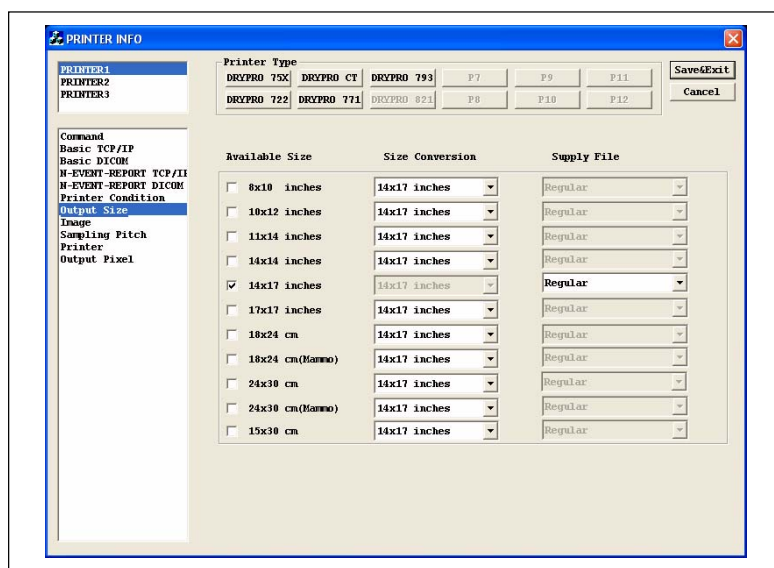
7.3.1 Setting the DRYPRO 793

When DRYPRO 793 is interfaced for mammo output, follow the procedures below to set the DRYPRO 793. Refer to ["5.5 Setting the Printer Information" P.18](#) for the basic setups of TCP/IP, etc.

1. Click [Printer] of "Input/Output" of "Service Tool (Console)" screen..
"PRINT INFO/command" screen will be shown.



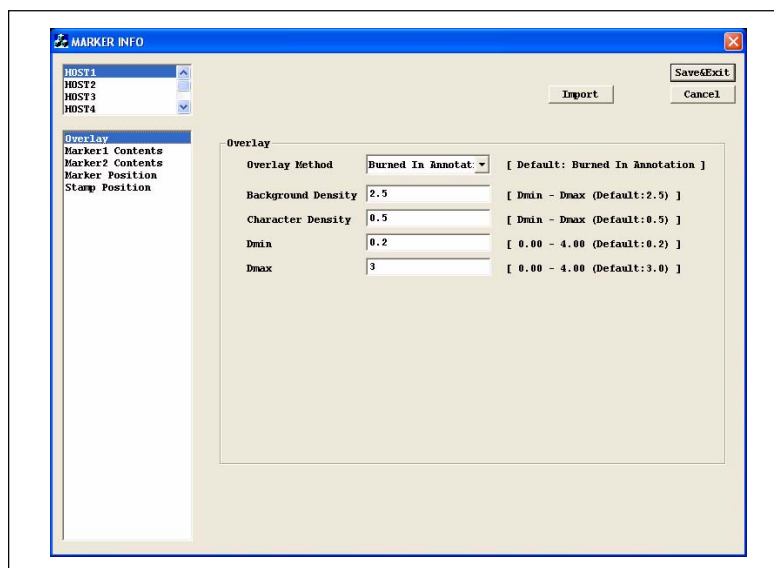
2. Select the printer name of the DRYPRO 793 in the upper left menu.
3. Check that the "Displayed Icon" is now showing "DRYPRO 793 printer name".
4. Select [Printer Condition] in the lower left menu.
5. Check that the "Regular Film" is set to "Blue", "Mammo Film" to "DR Blue" in the "Rilm Type".
6. Select [Output Size] in the lower left menu.
7. Tick the "Film Size" box that will be used on the DRYPRO 793, and set the film type in the "Supply Film".



- When using the same size for both regular and mammo films, select “Regular/Mammo” in the “Supply Film”.

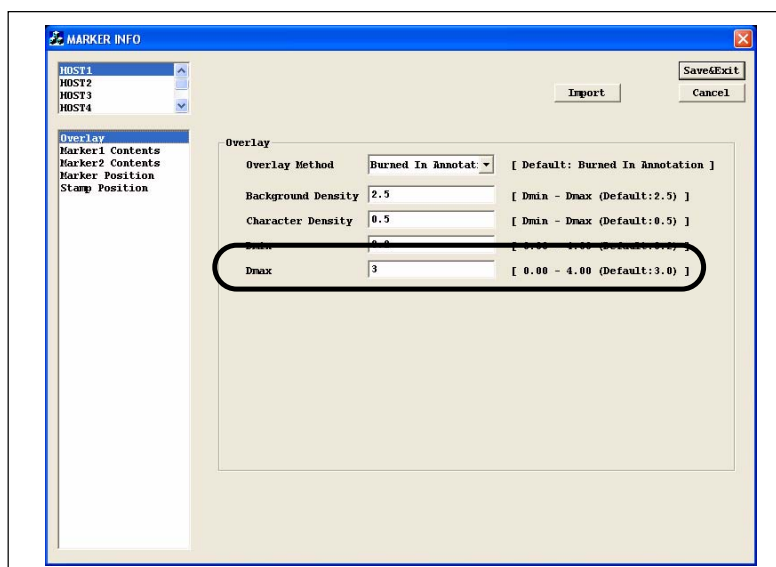
8. Click [Save & Exit] and then [YES] of the confirmation dialogue.
Returns to the “Service Tool (Console)” screen.

9. Click [Marker] of “Overlay”.
“MARKER INFO/Overlay” screen will be shown.



10. Select the printer name of the DRYPRO 793 in the upper left menu.

11. Input "4.0" in the "Dmax" of "Overlay".

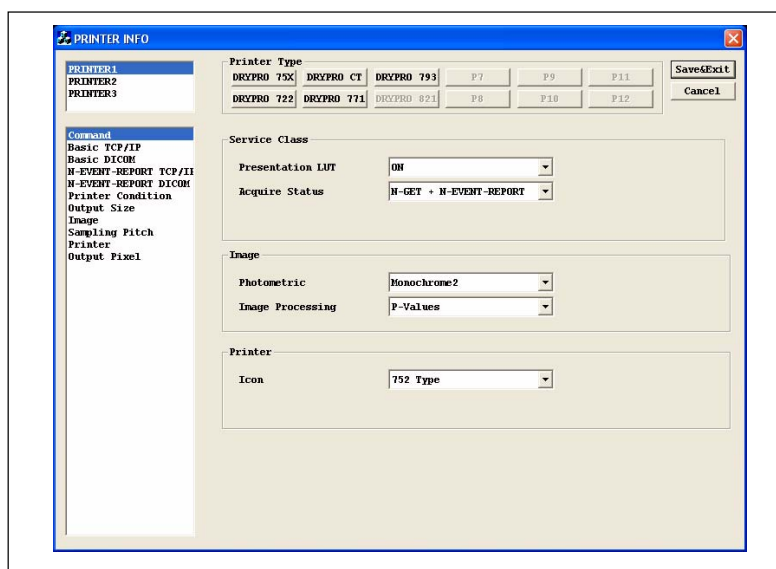


12. Click [Save & Exit] and then [YES] of the confirmation dialogue.
Returns to the "Service Tool (Console)" screen.

7.3.2 Setting the DRYPRO 751/752

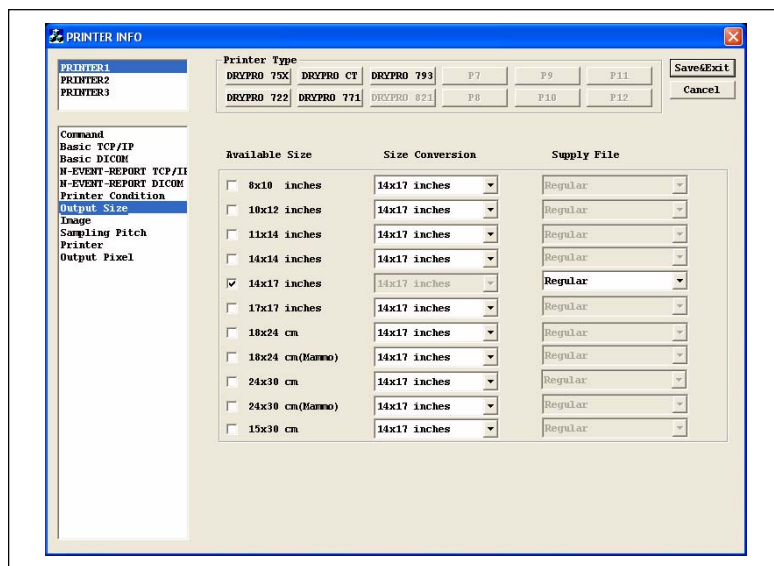
When DRYPRO 751/752 is interfaced for mammo output, follow the procedures below to set the DRYPRO 793. Refer to ["5.5 Setting the Printer Information" P.18](#) for the basic setups of TCP/IP, etc.

1. Click [Printer] of "Input/Output" of "Service Tool (Console)" screen..
"PRINT INFO/command" screen will be shown.



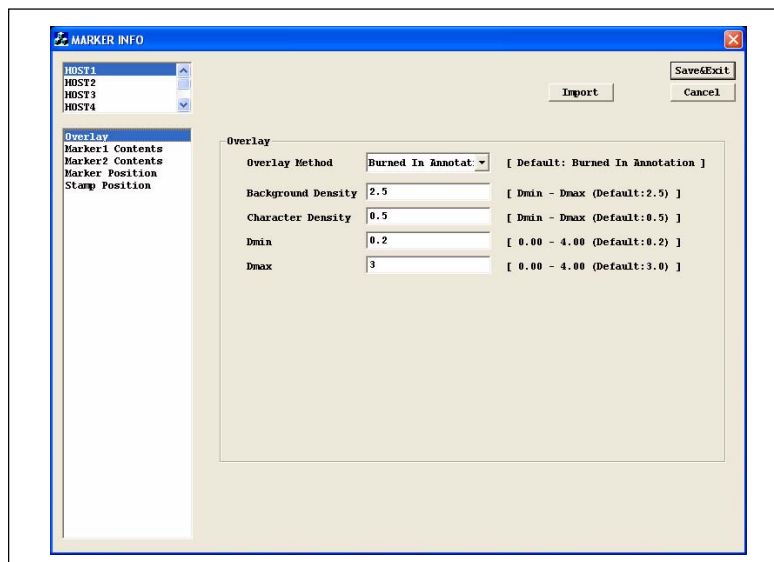
2. Select the printer name of the DRYPRO 751/752 in the upper left menu.

3. Check that the “Displayed Icon” is now showing “DRYPRO 752 type”.
4. Select [Output Size] in the lower left menu.
5. Tick the “Film Size” box that will be used on the DRYPRO 751/752, and set the film type to “Mammo” in the “Supply Film”.

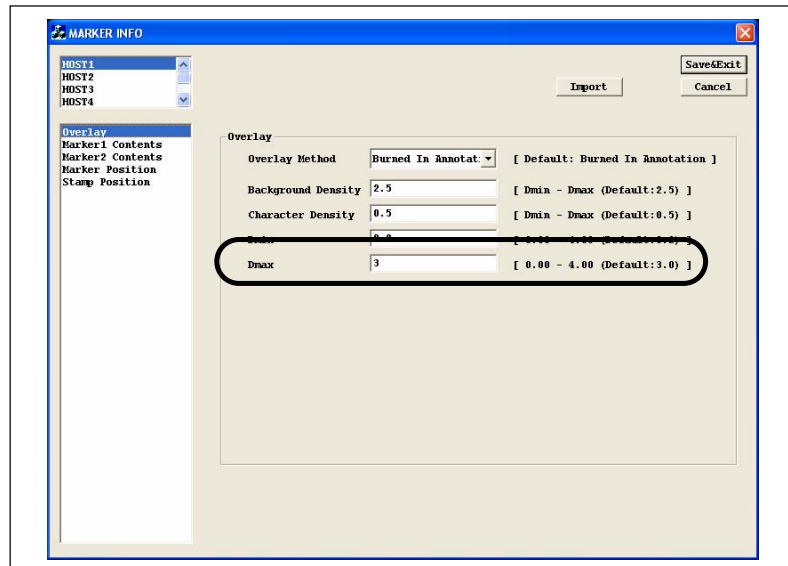


- When using the DRYPRO 751/752 for the output of both regular and mammo films, use different sizes between mammo and regular films. Also make sure that “Supply Film” is correctly set for each film size.

6. Click [Save & Exit] and then [YES] of the confirmation dialogue.
Returns to the “Service Tool (Console)” screen.
7. Click [Marker] of “Overlay”.
“MARKER INFO/Overlay” screen will be shown.



8. Select the printer name of the DRYPRO 751/752 in the upper left menu.
9. Input "3.6" in the "Dmax" of "Overlay".



10. Click [Save & Exit] and then [YES] of the confirmation dialogue.
Returns to the "Service Tool (Console)" screen.

7.4 Checking the REGIUS 190

Find out the plate version with which the REGIUS 190 was calibrated (uniformity, sensitivity) at the factory before shipment.

If the plate version between the one used for calibration of the mammo cassette and the other for actual examination is different, it becomes necessary to carry out the calibration using the plate that is actually used.

Procedures described in this paragraph assumes the use of RP-4M as a high sharpness plate for mammo image.

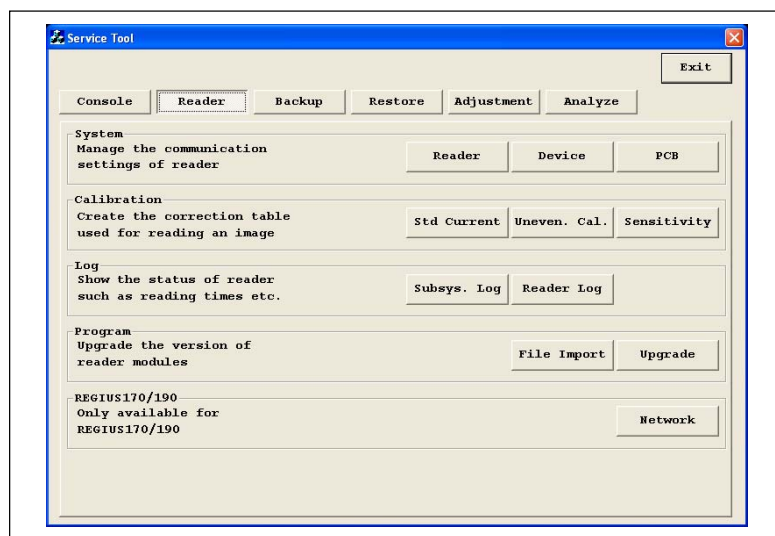
- When the plate version is identical, it is not necessary to calibrate the REGIUS 190 at the time of installation. When it is different, implement the procedures described in ["8.2.2 Unevenness Calibration of Mammo Cassette"](#) P.11.
- For the plate that is newly released, follow the instruction attached to the plate, and carry out the calibration.

7.4.1 Checking the Plate Version

Checking the uniformity correction

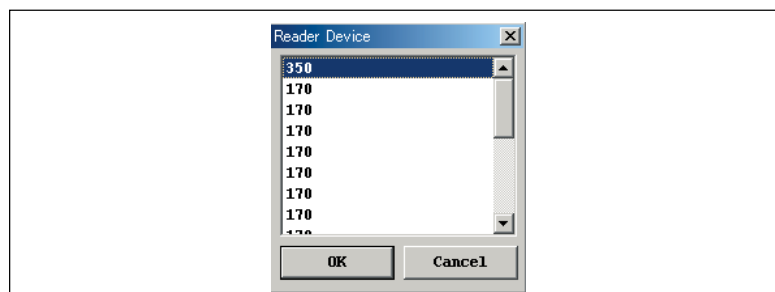
1. Click [Reader] of "Service Tool" screen.

"Service Tool" screen (Reader) will be shown.

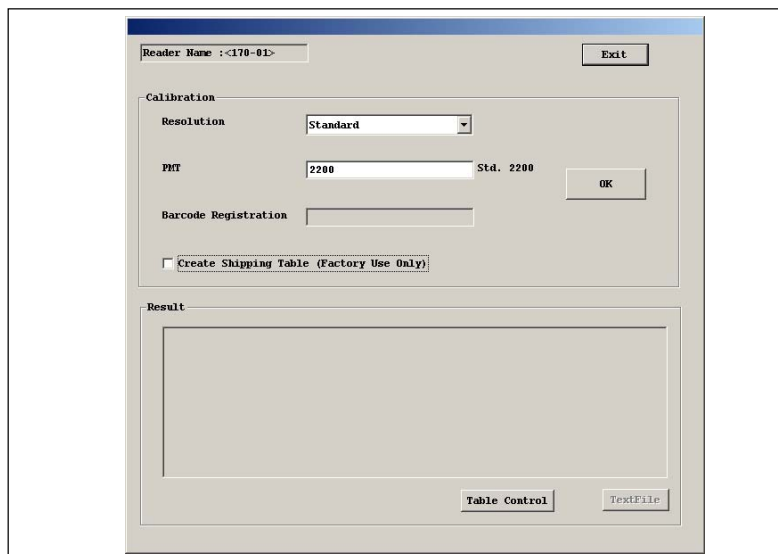


2. Click [Uneven. Cal.].

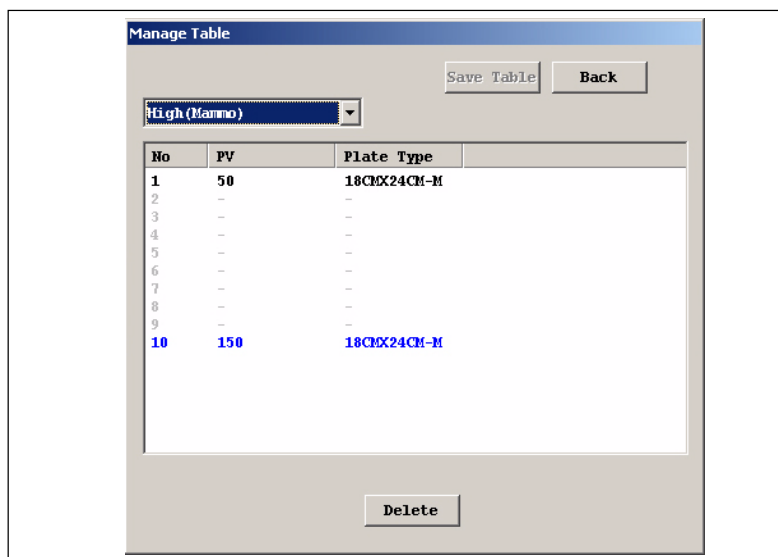
"Reader Device" screen will be shown.



3. Select the REGIUS 190 that will be used for reading the mammo cassette, then click [OK].
“Uniformity Correction” screen will be shown.



4. Click [Table Control].
“Manage Table” screen will be shown.
5. Select “High (Mammo)” in the upper left list.
Correction table for mammo plate will be shown.



6. Check the plate version (PV) listed in the No.1 line.
 - When the PV value is 51, it indicates that the uniformity correction is implemented using RP-4M, therefore no need to carry out calibration at the time of installation.
 - When the PV value is 50, it indicates that the uniformity correction is implemented using RP-3M, therefore it is necessary to implement uniformity correction for RP-4M.

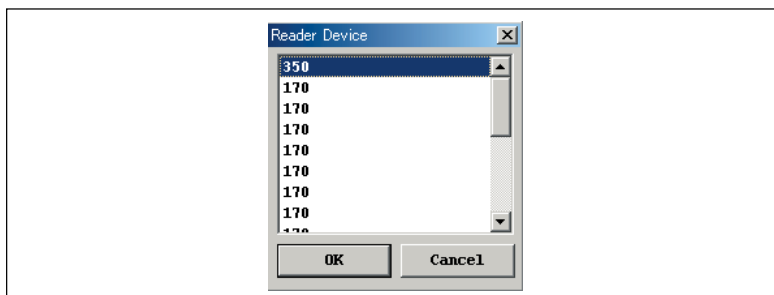
<Important>

- To use RP-3M on the REGIUS 190 that has been calibrated to RP-4M(PV=51) only and has no calibration data for RP-3M (PV=50), carry out the calibration with RP-3M before use.
- When both PV values, i.e. 50 and 51 have been registered in the table, you can start using RP-3M and RP-4M without necessity of any calibration in advance.

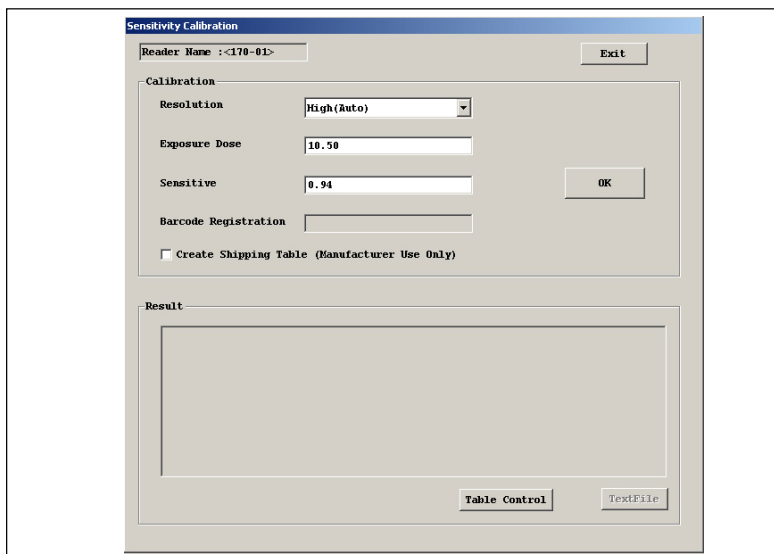
7. Click [Back] to close “Manage Table” screen.
8. Click [Exit] to close “Uniformity Correction” screen.
Screen switches to “Service Tool” screen (Reader).

Checking the sensitivity correction

1. Click [Sensitivity] of “Calibration”.
“Reader Device” screen will be shown.



2. Select the REGIUS 190 that will be used for reading the mammo cassette, then click [OK].
“Sensitivity Calibration” screen will be shown.



3. Click [Mange Table].
“Manage Table” screen will be shown.

4. Select “High (Mammo)” in the upper left list.

Correction table for mammo plate will be shown.

The screenshot shows a 'Manage Table' window. At the top right are 'Save Table' and 'Back' buttons. Below them is a dropdown menu showing 'Standard (Regular)'. The main area contains a table with the following data:

No	PV	QR=125	QR=250	QR=500
1	00	1737	1951	2188
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-
8	-	-	-	-
9	-	-	-	-
10	100	1737	1951	2188

At the bottom right is a 'Delete' button.

5. Check the plate version (PV) listed in the No.1 line of the table.

- When the PV value is 51, it indicates that the sensitivity correction is implemented using RP-4M, therefore no need to carry out calibration at the time of installation.
- When the PV value is 50, it indicates that the uniformity correction is implemented using RP-3M, therefore it is necessary to implement sensitivity correction for RP-4M.

<Important>

- To use RP-3M on the REGIUS 190 that has been calibrated to RP-4M(PV=51) only and has no calibration data for RP-3M (PV=50), carry out the calibration with RP-3M before use.
- When both PV values, i.e. 50 and 51 have been registered in the table, you can start using RP-3M and RP-4M without necessity of any calibration in advance.

6. Click [Back] to close “Manage Table” screen.

7. Click [Exit] to close “Uniformity Correction” screen.

Screen switches to “Service Tool” screen (Reader).

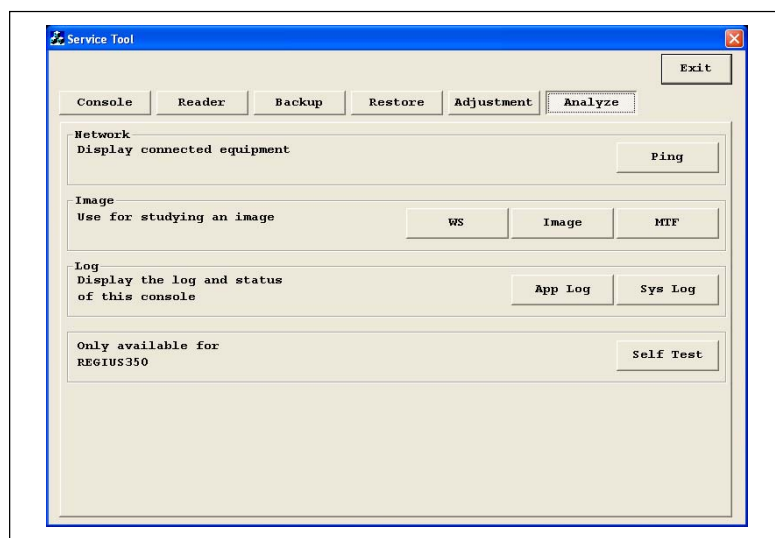
When both uniformity and sensitivity corrections have been made using RP-4M before shipment from the factory, it is not necessary to do any calibration at the time of installation.

7.5 Checking the Mammo Exposure Device

Carry out a test exposure using the mammo exposure device at the institute, and check that X-ray is sufficiently irradiated on the chest wall area of the mammo cassette.

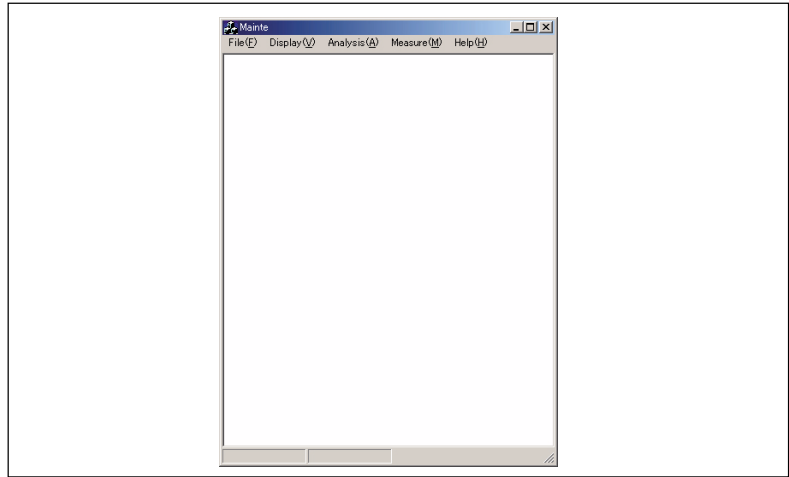
<Important>If the X-ray irradiation is insufficient on the chest wall area of the mammo cassette, masking of the chest wall area (blackening process of the chest wall area) on an actual image can not be achieved.

1. Install a mammo cassette on the mammo exposure device, and expose the solid density image.
Positioning a marker object on the chest wall side will help recognize which is the chest wall side when checking the image.
2. Start up the CS-1/CS-3 application.
3. Input the patient data on "Examination Search" screen of the CS-1/CS-3 application and read the exposed cassette on the REGIUS 190.
 - Follow the normal examination procedure.
4. Open "REGIUS Service" screen, and open "Service Tool" screen.
Refer to "1.6 Service Tool Screens of CS-3" to start "Service Tool".
5. Click [Analyze] of "Service Tool" screen (Console).
"Service Tool" screen (Analyze) will be shown.



6. Click [Image] of “Image”.

Image-check tool will be shown.



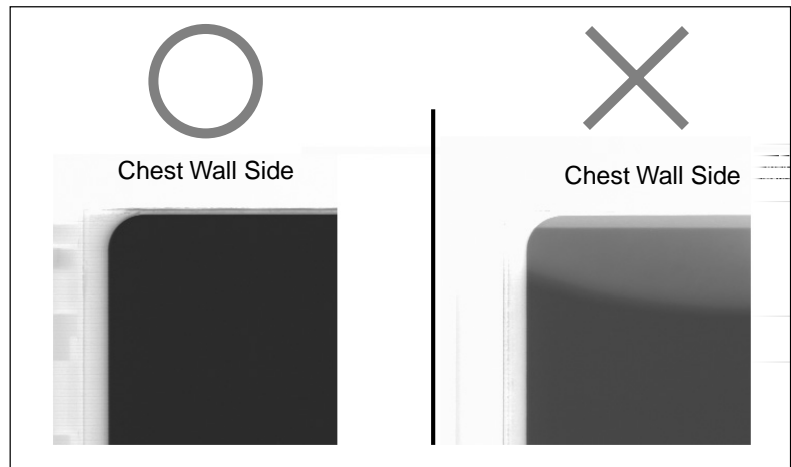
7. Select [Open (O)] from [File (F)] menu, and open the image that was read in the step.3.

8. Read the image, and examine the chest wall area.

When the image shows no density difference from the image center through the edge of chest wall side of the plate, the exposure is judged to be correct. If the density difference is observed on the chest wall side, it indicates X-ray irradiation was improper.

- Because the plate corner is round-shaped, it is helpful to observe the density in this area.

Ex)



9. After checking the image, select [File (F)] --> [Exit Application (X)] to exit the image examination tool.

Screen switches to “Service Tool (Analyze)” screen.

- When it was judged that the X-ray irradiation was not sufficient on the chest wall side, request the institute’s administrator to adjust the exposure device.

7.6 Setting and Checking the Blackening Process of Chest Wall

Expose the phantom using the phantom exposing device, and check that the blackening process (masking) of the chest wall is properly working or not. When the blackening process was judged to be normal, set the “Masking Chest Wall” to “ON”.

7.6.1 Checking the Blackening Process of Chest Wall

<Important>Carry out an exposure individually for both “CC” and “MIL”, and check the image.

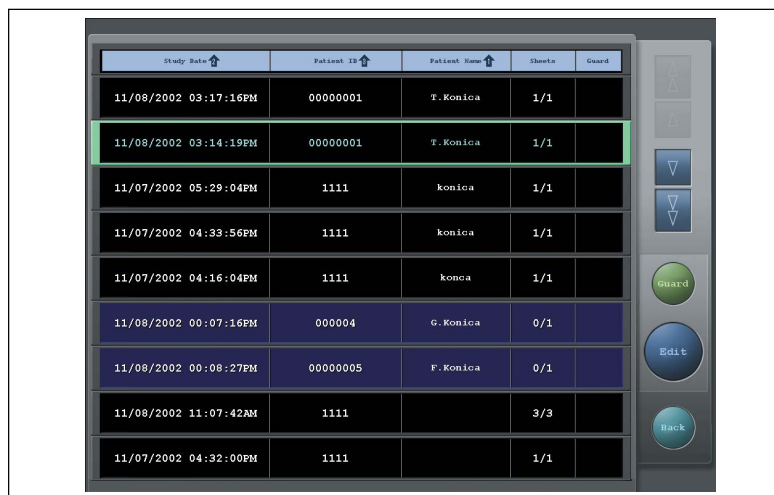
1. Install a mammo cassette on the mammo exposure device, then expose the phantom image.
 - Use a normal exposure condition for the institute.
 - Position the phantom so that it protrudes from the cassette edge.
2. Starts up the CS-1/CS-3 application.
3. Read the mammo cassette on which the image was exposed using a normal examination procedure, then print the image from the printer. An image with the image whose chest wall side is not treated in blackening process.
4. Touch [Konica MINOLTA].

“System Menu” will be shown.



5. Touch [History].

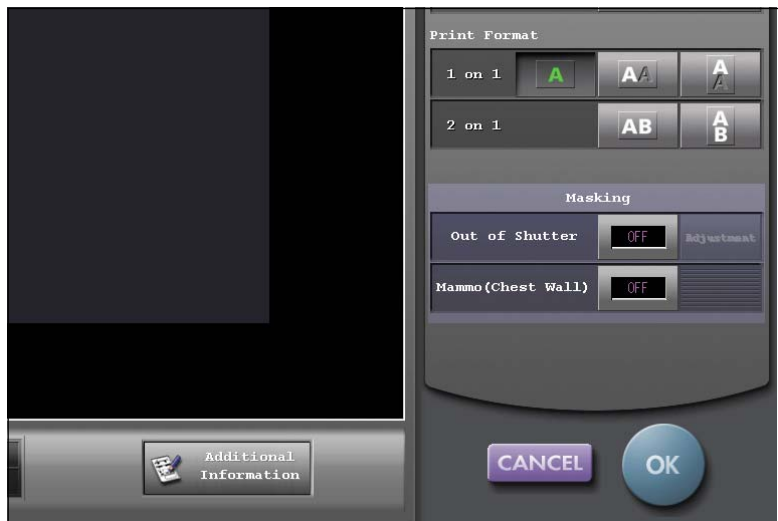
“Examination History” screen will be shown.



6. Select the examination carried out in the step.3, and touch [Edit].
The image output in the step.3 will be displayed on “Image Reference” screen”.

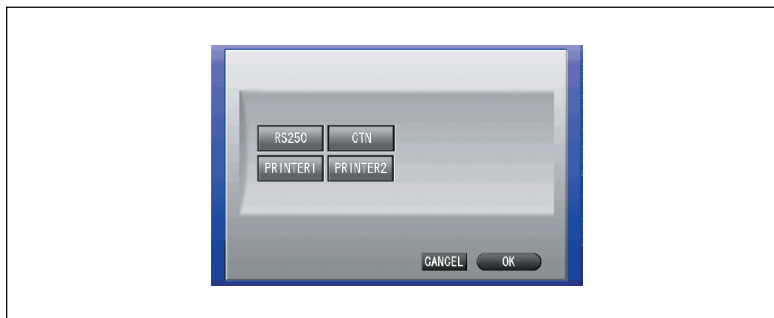


7. Touch on the screen to display “Detailed Data Setting” screen, and touch [Print Format].



8. Touch “Out of Shutter”.
9. Touch [OK].
Screen will switch to “Image Reference” screen.

10. Touch [Output].
 “Output Setting” screen will be shown.



11. Select [PRINTER2], then touch [OK].

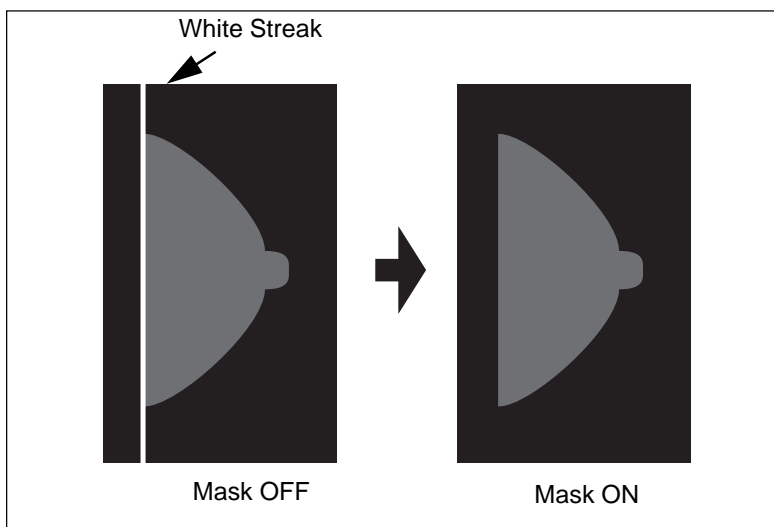
The same image as output in the step.3 will be output with the chest wall area treated in blackening process.

- Output both “CC” and “MIL”.

12. Compare the images, one treated in blackening process and the other not, and evaluate the result of the blackening process.

Criteria for judging the blackening process

With the image that is not treated in blackening process, a white streak can be observed along the boarder of the chest wall. Blackening process (masking) is a process to black out this streak.



Check the image with the mask (blackening) “ON” and “OFF”, and judge the quality level.

When a white streak still remains on the area where blackening process is applied.

If the width of white streak is 0.1mm or less, it is judged to be acceptable.

When the area where blackening process is applied overlaps with the exposed image.

If the width of overlapping on the phantom image is 1mm or less, it is judged to be acceptable.

Blackening process (masking) is not successful if the white streak does not decrease even with the blackening process is ON or blackened area overlaps with the image for 1mm or more.

<Important>When the blackening process is not successful, do not carry out the next procedure "[7.6.2 Setting the Exam Tag](#)". If such happens, save the exposed image in a CD-R, and send it to KonicaMinolta representative.

7.6.2 Setting the Exam Tag

When the blackening process (masking) was judged to be successful, follow the procedure below and set “Masking, Chest Wall” of the exam tag for mammo exposure to “ON”.

Note When the chest wall area of the mammo cassette is not sufficiently irradiated by X-ray in "7.5 Checking the Mammo Exposure Device" or blackening process was judged to be unsuccessful in "7.6.1 Checking the Blackening Process of Chest Wall", do not carry out this procedure.

1. Start up “REGIUS Service” screen using mouse or touch panel, then start “Service Tool”.
“Service Tool (Console)” screen will be shown.
2. Click [Exam Tag] of “Exposure”.
“Exam Tag Setup” screen will be shown.

Serial No.	Group	Exam Tag	Reader	L/R
1010010010001...	Skull	AP	170	-
1010010010001...	Skull	PA	170	-
1010010010001...	Skull	LAT	170	-
1010010010003...	Skull	Towne	170	-
1010010010003...	Skull	axial	170	-
1010010020001...	Sella	AP	170	-
1010010020001...	Sella	LAT	170	-
1010010030001...	Sinuses	PA	170	-
1010010030001...	Sinuses	LAT	170	-
1010010030003...	Sinuses	Waters	170	-
1010010030003...	Sinuses	Caldwell	170	-
1010010040003...	Temporal B	Schuller	170	-
1010010040003...	Temporal B	Stenvers	170	-
1010010040004...	Temporal B	Law	170	-
1010010040004...	Temporal B	IRC	170	-
1010010070004...	Orbit/Foram	Phase	170	-
1010010100001...	Nasal Bone	LAT	170	-
1010010100002...	Nasal Bone	axial	170	-
1010010110002...	Zygoma	Semiox, Obi	170	-
1010010110003...	Zygoma	Waters	170	-
1010010120001...	Orbit	Frontal	170	-
1010010120001...	Orbit	LAT	170	-
1010010120002...	Orbit	Forner 1	170	-
1010010130001...	TM Joint	PA	170	-
1010010130003...	TM Joint	Schuller	170	-
1010010130004...	TM Joint	Transorbit.	170	-
1010010160001...	Maxilla	PA	170	-
1010010160001...	Maxilla	LAT	170	-
1010010160003...	Maxilla	Waters	170	-
1010010190001...	Mandible	PA	170	-
1010010190001...	Mandible	axiolat	170	-
1010010190001...	Mandible	SWVertex	170	-
1010010220001...	Parotid	AP	170	-
1010010220001...	Parotid	LAT	170	-
1010010220001...	Parotid	Oblique	170	-

3. Select “190” in “Reader”, and “Mammo” in “Body Part”.

4. Select [All] of “Selection Scope”, and click [Property].

“Detailed Setup (1/3)” screen will be shown.

Detail Setup

Save&Exit Cancel 1 / 3

ExamTag Information

Tag No. 101010002100610000 Tag Name Cr-Ca
Page Name Mammogram Group Name CC (R)

Read Information

Reader 170 Resolution High
Sensitive Standard
Std. Sensitive Low 125 Std. 250 High 500
Rotate/Flip 90

Output Information

Guard ☐ ON
Printer ☒ PRINTER1 ☐ PRINTER2 Dev. Setup
Host ☒ HOST1 ☒ HOST2

Study Information

Exp. Part BREAST Body Part Clear
Detail Breast

PrevPage NextPage

5. Click [Dev. Setup] of [Output Information].

“Printer Info” screen will be shown.

6. Click “ON” of “Masking, Chest Wall”.

Output Device Information

Save&Exit Cancel Printer HOST1

Printer PRINTER1
Copies 1

Input Size **Output Size**

17x17 inches	11x14inches
14x17 inches	11x14inches
14x14 inches	11x14inches
11x14 inches	11x14inches
10x12 inches	11x14inches
8x10 inches	11x14inches
24x30 cm(Std)	11x14inches
18x24 cm(Std)	11x14inches
24x30 cm(Mammo)	11x14inches
18x24 cm(Mammo)	11x14inches
15x30cm(Std)	11x14inches

Orientation Default
Format 1x1
Mag.Method Actual
Trim Posi. Middle
Print Posi. Middle

Stamp Stamp1 Posi. Lower
Marker 1 OFF Posi. Upper
Marker 2 OFF Posi. Upper

Scale OFF
G-Main Img ☒ ON
E-Main Img ☐ ON
F-Main Img ☒ ON
H-Main Img ☒ ON
G-2nd Img ☒ ON
E-2nd Img ☐ ON
F-2nd Img ☒ ON
H-2nd Img ☒ ON

Background Clear
Shutter ☐ ON
Chest Wall ☐ ON

Dmin 0.20
Dmax 3.00
Illumination 2000 [cd/m2]
REL. MB. Light 10 [cd/m2]

7. Click [Save & Exit] to close “Output Device Information” screen.

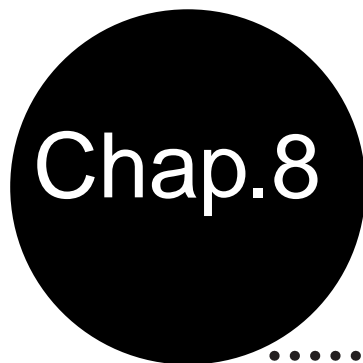
Screen switches to “Detailed Setup (1/3)” screen.

8. Click [Save & Exit] to close “Detailed Setup (1/3)” screen.

Screen switches to “Exam Tag Setup” screen.

9. Click [Save & Exit] to close “Exam Tag Setup” screen.
Screen switches to “Service Tool (Console)” screen.

Reference Setting of the exam tags can also be implemented using the User Tool of CS-1/CS-3 application tool. Refer to “User Tool” manual for how to use the User Tool.



Chap.8

Check and Adjustment of REGIUS 190/170



In this chapter, how to check and adjust the image output from the REGIUS 190/170 is described.

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8.1 Checking and Adjusting Image Size

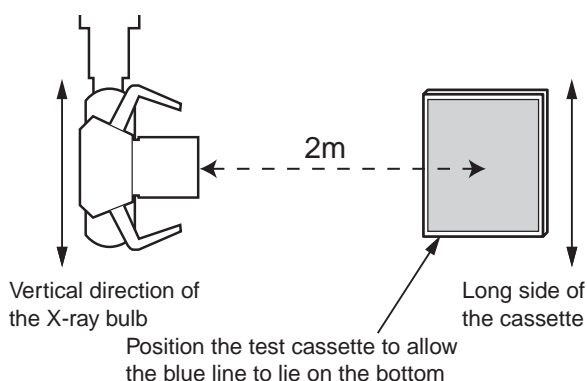
Check the pixels in the main scanning direction of the REGIUS 190/170, and adjust PLL setting if the result is out of allowance.

8.1.1 Checking Image Size, Read Start Position

Reading the cassette on the REGIUS 190/170, which is exposed to produce solid density, and count the pixels in the main scanning direction.

<Important>Refer to the CS-3 operation manual for the routine mode operation.

1. On the CS-3 operation unit, input a dummy patient information for the image check purpose, then touch [Start Exam.].
“Select Body Parts/Condition” screen will be shown.
2. Touch [170] on the “Reader Type” screen.
3. Touch [TEST] of the Rough Classification, then touch [test1] of exposure condition.
4. Touch [OK].
“Exam. Check” screen will be shown.
5. Set the reading resolution to “High Resolution”.
6. Expose the test cassette to produce solid density.
 - Exposure to be made under the condition : Bulb Voltage - 80kV, 10mAs / Distance - 2m.
 - Align the long side of the cassette with the vertical direction of the X-ray bulb. (Blue line of the cassette is positioned downward)



7. When the system is set to “barcode Registration”, read the barcode of the cassette that is exposed. When it is set to “Manual Registration”, touch the order (indicated as “Konica-TEST1”) on the screen.
In the case of “barcode Registration”, barcode of the cassette will be shown on the order bar. For “Manual Registration”, it indicates as “1st”.

8. Insert the cassette into the REGIUS 190/170.

As the image in the cassette is read, the image is displayed on the screen of operation unit.

9. Touch [OK].

10. Touch [Complete].

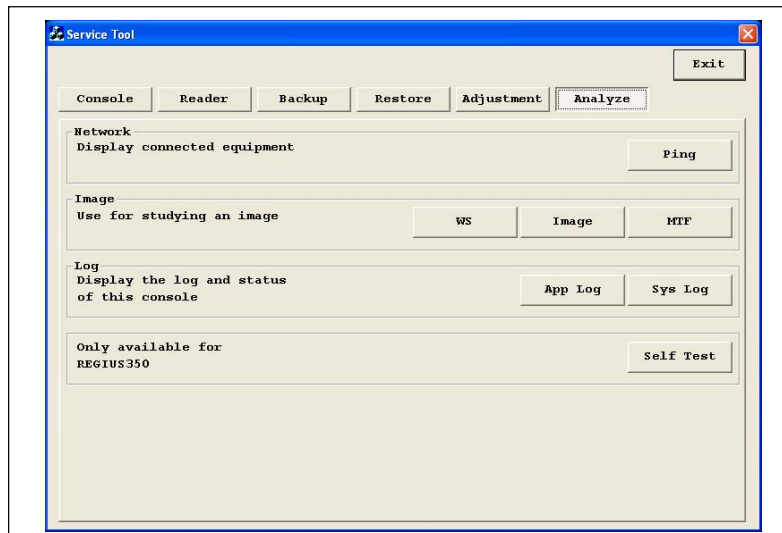
11. Touch [KONICA MINOLTA], and start "Service Tool" from the system menu.

or open the "REGIUS Service Screen", and from which start the "Service Tool".

"Service Tool" screen will be shown.

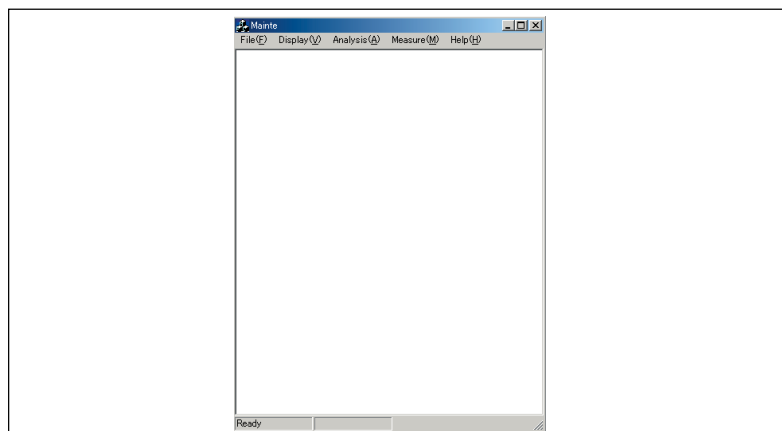
12. Touch [Analyze].

"Analyze" screen will be shown.



13. Click [Image].

Image-check tool will start.

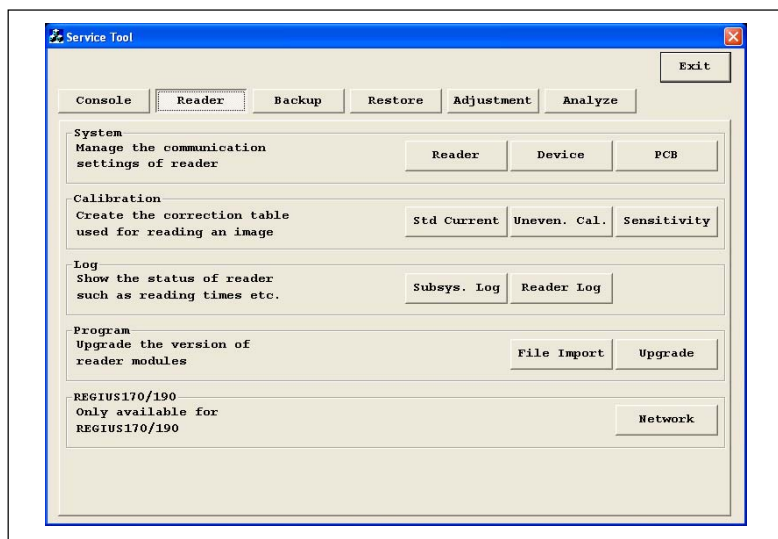


14. Select [Open (O)] in the [File (E)] menu.
“Open” dialogue will be shown.
15. Open the image data read in step 8.
16. Using mouse, count the number of fluorescent pixels(image pixels) in the horizontal direction of the read image.
17. Check that the pixels counted in step 16 fall within the allowance (4046pixels -5 ~ +10 pixels).
18. Select [View Size (V)] in the [Display (V)] menu, and select [No Pixel Skip (N)] in the submenu.
19. Using mouse, check that the margin of H_sync(on the left side of image) on the plate falls within the allowance(60~ 70 pixels).
20. Exit “Image Check” tool.
Returns to “Service Tool” screen(Analyze).

Fluorescent Pixel Size or pixels in the margin is out of the allowance, adjust the PLL, read start position following the procedures below.

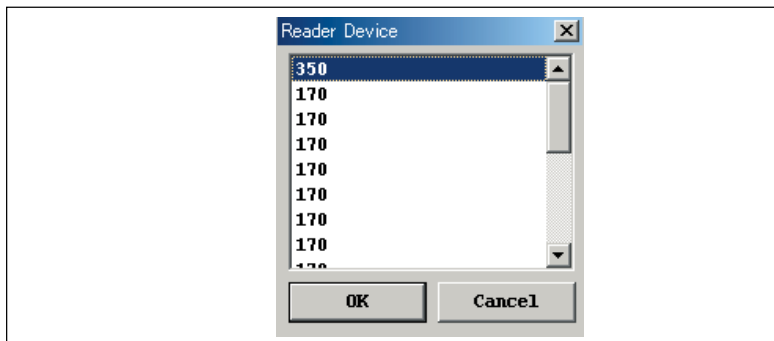
8.1.2 Adjusting PLL, Read Start Position

1. Click [Reader] of the “Service Tool” screen.
“Service Tool” screen(Reader) will be shown.



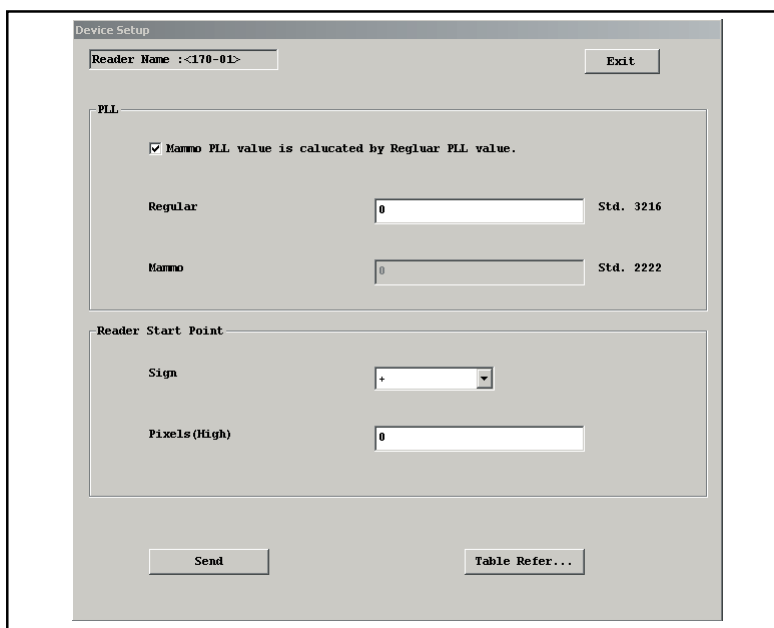
2. Click [Device] of [System].

“Reader Device” screen will be shown.



3. Select the REGIUS 190/170 on which the image is read, and click [OK].

“Device Setup” screen will be shown.



To Change Pixels

1. Change the setting of “Regular (x1.5 speed)”

Measured Pixels	Setting of PLL Pixel Clock Count
Larger than 4056 pixels	decrease
Smaller than 4041 pixels	increase

- The relation between the pixels of high resolution(87.5μm) and PLL value would roughly be described ;
 $1 \text{ pixel} = \text{PLL value} \times 1.3$

To Change Read Start Point

1. In “Code” and “Pixels (high res)”, input the direction and quantity you want to shift the position.
 - code + : shift the position toward H_sync.
 - code - : shift the position recede from H_sync.
 - Pixels (high res) : input the value calculated by “pixels for required shift x 2”
2. Click [Send].

Altered value will be sent to the REGIUS 190/170.
3. Click [Exit].

Returns to “Service Tool” screen(Reader).

8.2 Unevenness Calibration

Whenever the optical unit of the REGIUS 190/170 is replaced or starting to use the REGIUS Plate with new version, implement the unevenness correction following the procedures below.

Note Use the largest cassette that is used in the facility for the correction of the unevenness. The correction value will be invalid for the sizes larger than the one used for the correction.

Note Setting of uniformity calibration is different between for regular plate and plate exclusively for mammo exposure. Refer to ["8.2.2 Unevenness Calibration of Mammo Cassette"](#) for calibration of mammo cassette.

8.2.1 Unevenness Calibration of Regular Cassette

1. Using the condition shown below, expose a solid density image on the cassette for the unevenness correction.

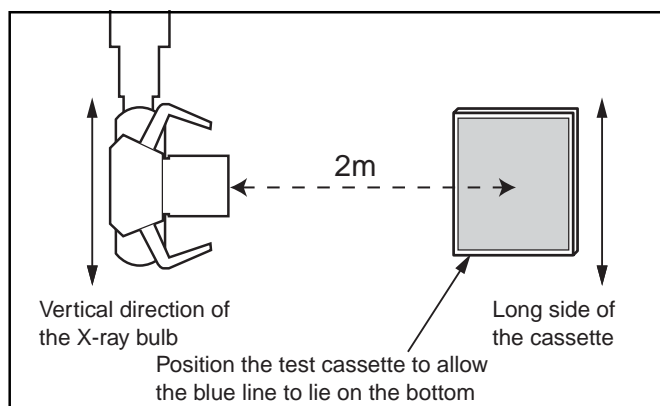
- Exposure Condition

Volt : 80kV (fixed)

mAs value : Set the X-ray dose so that the maximum data value falls within 1500 ~ 3000 Step. (10 ~ 20mAs at 2m as a target)

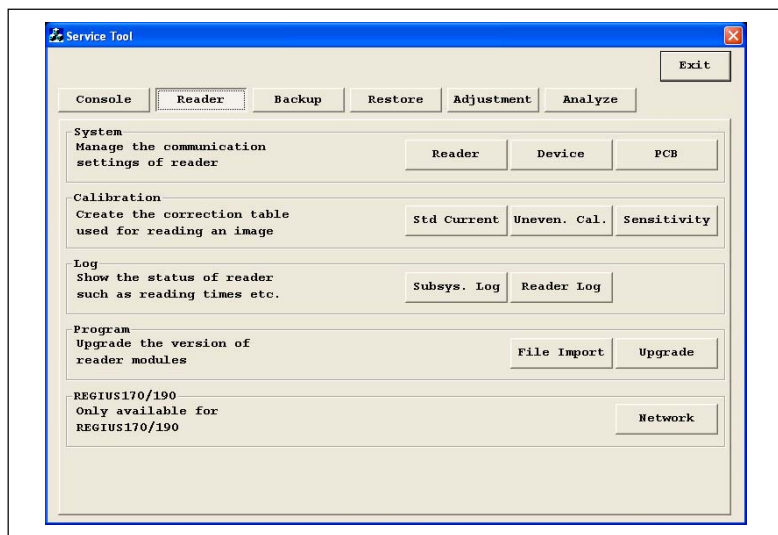
Plate - Bulb distance : 2m or more (recommended)

- Align the long side of the cassette with the vertical direction of the X-ray bulb.



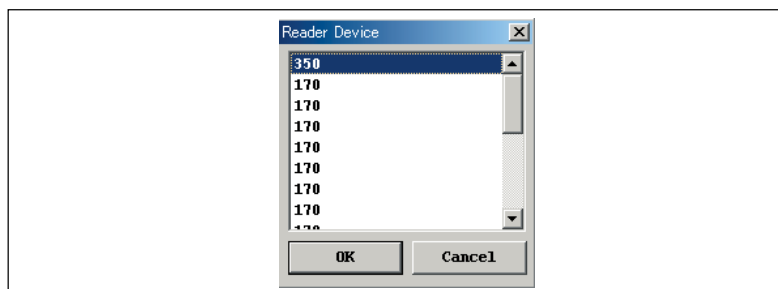
2. Click [Reader] of the “Service Tool”.

“Service Tool” screen(Reader) will be shown.



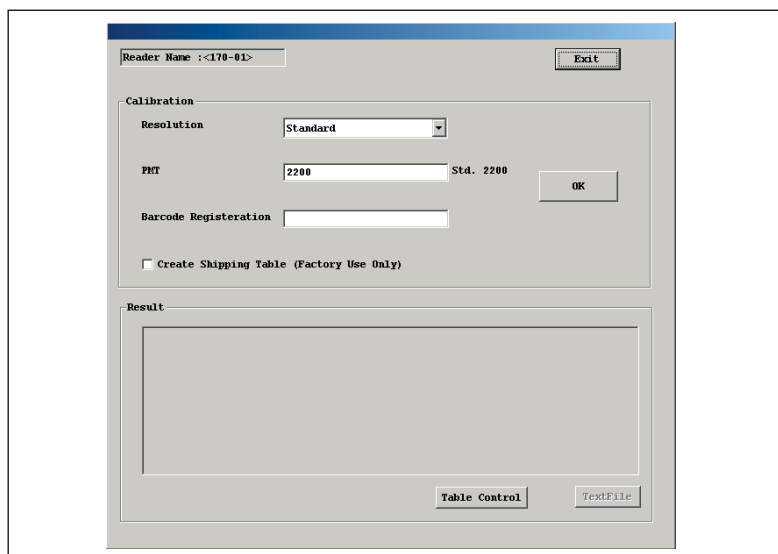
3. Click [Uneven. Cal.].

“Reader Device” screen will be shown.



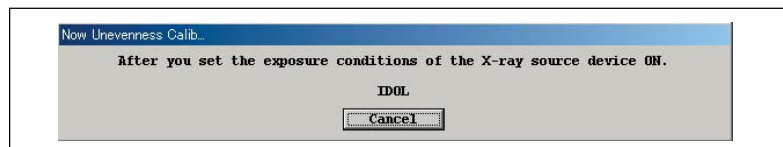
4. Select the REGIUS 190/170 on which the unevenness should be corrected, and click [OK].

“Unevenness Calibration” screen will be shown.

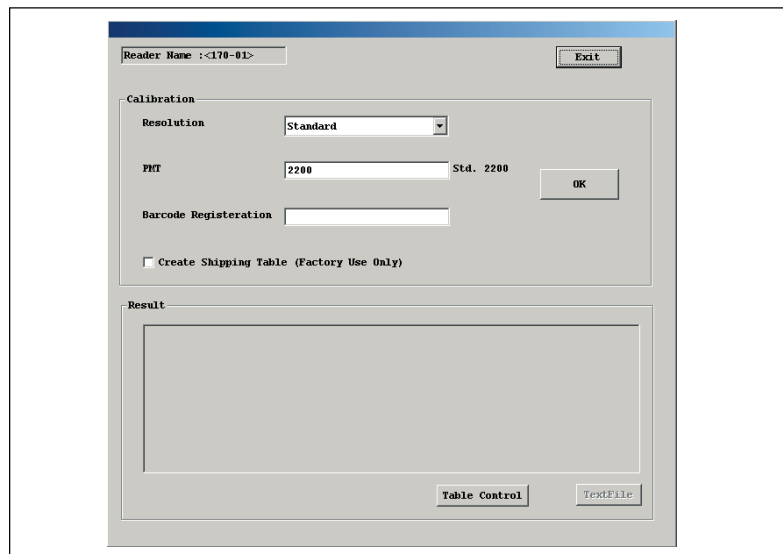


5. Select the resolution to be corrected in "Resolution".
Select "High(Auto)"(87.5 μ m) or "Standard"(175 μ m).
6. When the system is set to "barcode Registration", read the barcode on the cassette using a barcode reader. The barcode data read by the barcode reader will be displayed on the "barcode Registration".
 - When the system is set to manual registration, it is not necessary to read the barcode.
7. Click [OK].

A dialogue indicating the progress of the unevenness calibration will be shown.



8. Insert the cassette into the REGIUS 190/170.
As the image is read from the cassette, unevenness correction is implemented. Upon completion of the uneven correction, corrected result will be shown in the "Result" column.



9. Click [Exit].
Returns to the "Service Tool" screen (Reader).
The corrected result of the unevenness will be saved in the unevenness correction table of the CS-3.
 - For the unevenness calibration in normal case, carry out the correction for both "High(Auto)" and "Standard".

8.2.2 Unevenness Calibration of Mammo Cassette

<Important>For the exposure of solid density in order to carry out a calibration, use the X-ray exposure device (light source is a tungsten bulb) for regular cassette, not the one for mammo exposure.

<Important>If only the bulb for mammo is available in the institute, carry out the solid density exposure at the nearest facility where the tungsten bulb is available, and carry out the unevenness calibration after 0.5 hours and within 3 hours.

1. Using the condition shown below, expose a solid density image on the mammo cassette (RP-4M) for the unevenness correction.

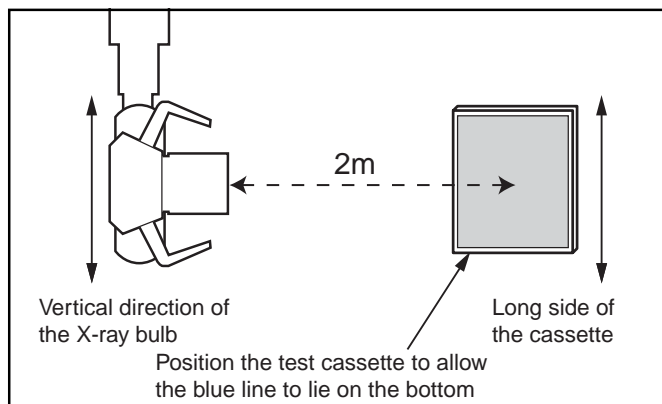
•Exposure Condition

Volt : 80kV (fixed)

mAs value : Set the X-ray dose so that the maximum data value falls within 1500 ~ 3000 Step. (10 ~ 20mAs at 2m as a target)

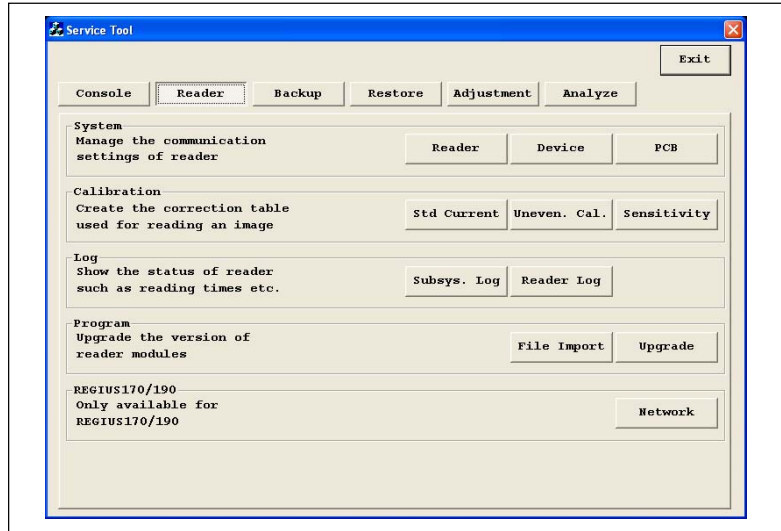
Plate - Bulb distance : 2m or more (recommended)

- Align the long side of the cassette with the vertical direction of the X-ray bulb. (Blue line of the cassette is positioned downward)
- Make sure that whole surface of the cassette is exposed to X-ray. Especially, the side of the blue line has less margin, be careful not to shade the exposure with the retaining frame, etc.



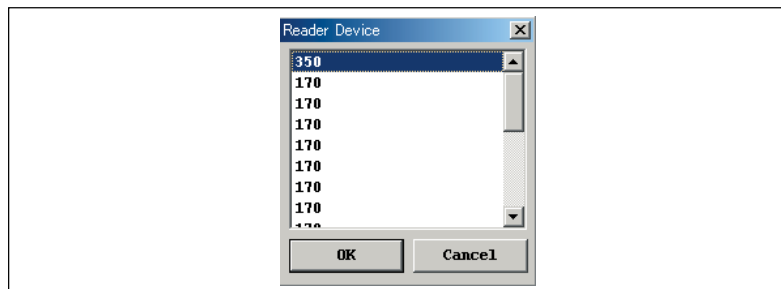
2. Click [Reader] of the “Service Tool”.

“Service Tool” screen(Reader) will be shown.



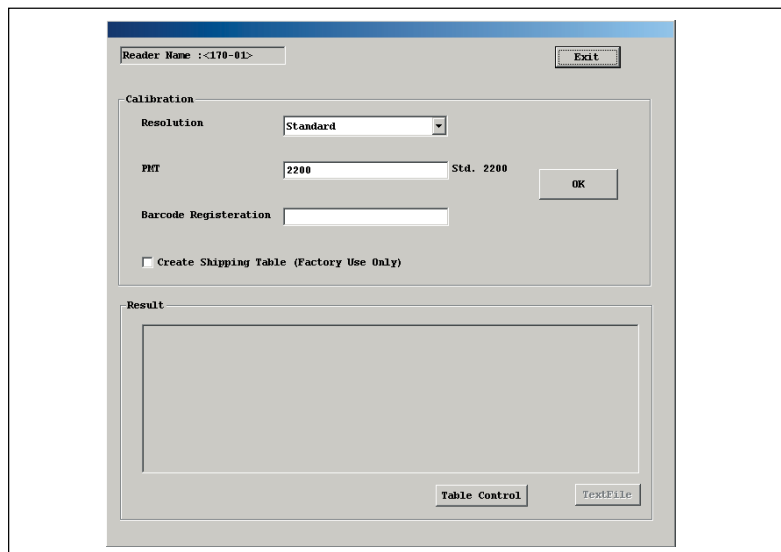
3. Click [Uneven. Cal.].

“Reader Device” screen will be shown.



4. Select the REGIUS 190 that will be used for reading the mammo cassette, and click [OK].

“Unevenness Calibration” screen will be shown.



5. Select the resolution to be corrected in “Resolution”.

Select “High(Auto)/Mammo Std”(87.5 μ m).

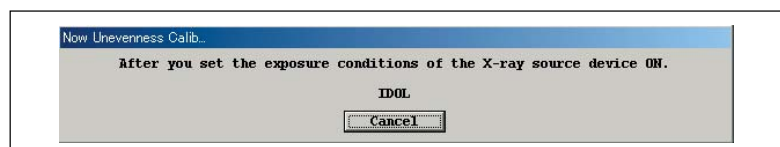
<Important>Always select “High(Auto)/Mammo Std” for mammo cassette.

6. When the system is set to “barcode Registration”, read the barcode on the cassette using a barcode reader. The barcode data read by the barcode reader will be displayed on the “barcode Registration”.

- When the system is set to manual registration, it is not necessary to read the barcode.

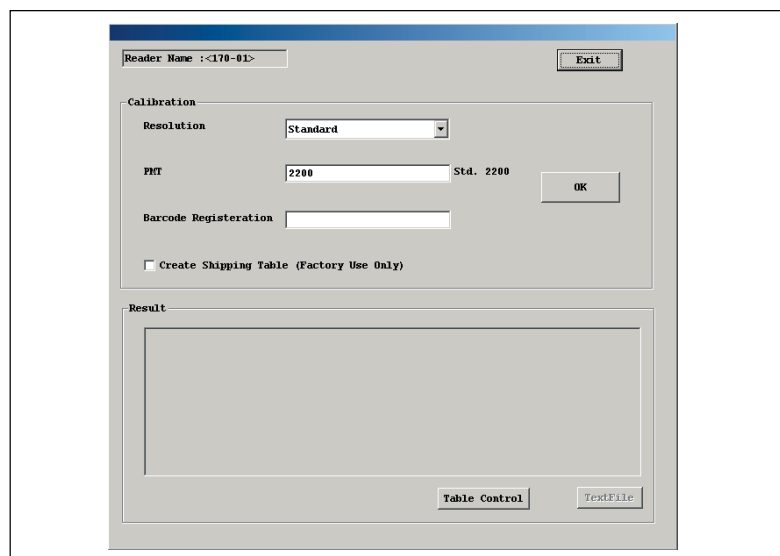
7. Click [OK].

A dialogue indicating the progress of the unevenness calibration will be shown.



8. Insert the cassette into the REGIUS 190.

As the image is read from the cassette, unevenness correction is implemented. Upon completion of the uneven correction, corrected result will be shown in the “Result” column.



9. Click [Exit].

Returns to the “Service Tool” screen (Reader).

The corrected result of the unevenness will be saved in the unevenness correction table of the CS-3.

<Important> When the cassette reader is REGIUS 190, unevenness calibration of the mammo cassette should be

caried out using both “Mammo H-Res. (43.75µm)”
and “Mammo Std. (87.5µm)” resolution types.

8.3 Sensitivity Calibration

Sensitivity calibration shall be necessary to compensate the sensitivity differences from one REGIUS 190/170 to the other when the condition of X-ray generator device is altered.

<Important>Use the largest cassette that is used in the facility for the correction of the unevenness. The correction value will be invalid for the sizes larger than the one used for the correction.

<Important>Setting of uniformity calibration is different between for regular plate and plate exclusively for mammo exposure. Refer to "8.3.2 Sensitivity Calibration of Mammo Cassette." for calibration of mammo cassette.

8.3.1 Sensitivity Calibration of Regular Cassette

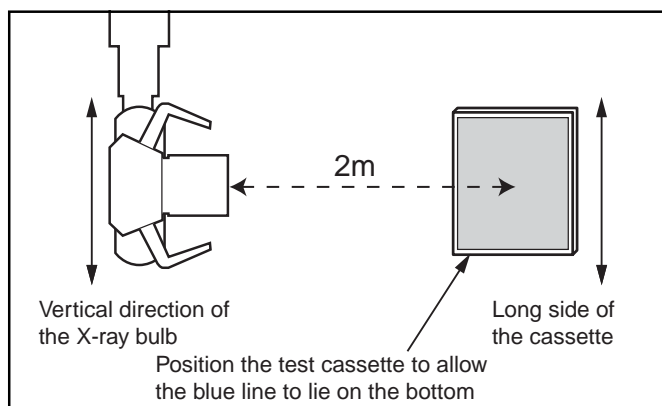
1. Using the condition shown below, expose a solid density image on the cassette for the unevenness correction.

- Exposure Condition

Volt : 80kV (fixed)

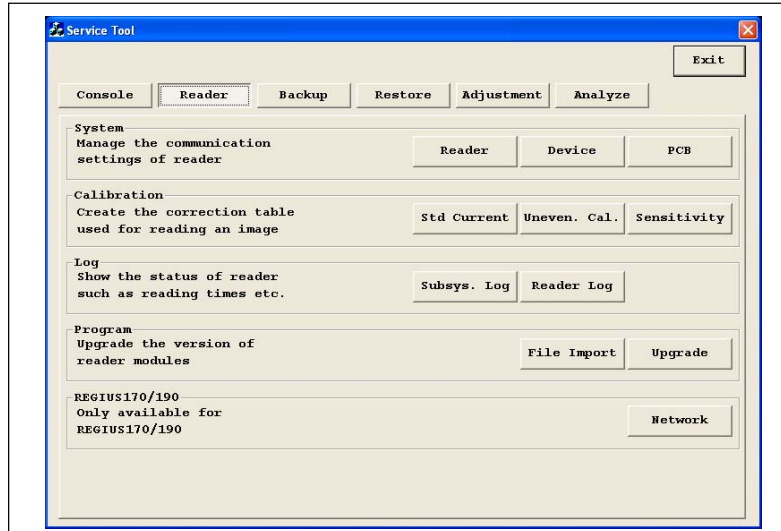
Standard X-ray Dose : 10mR \pm 2

- Align the long side of the cassette with the vertical direction of the X-ray bulb. (Blue line of the cassette is positioned downward)



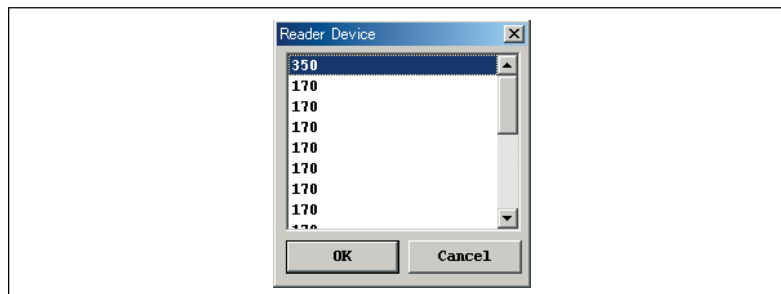
2. Click [Reader] of the “Service Tool”.

“Service Tool” screen (Reader) will be shown.



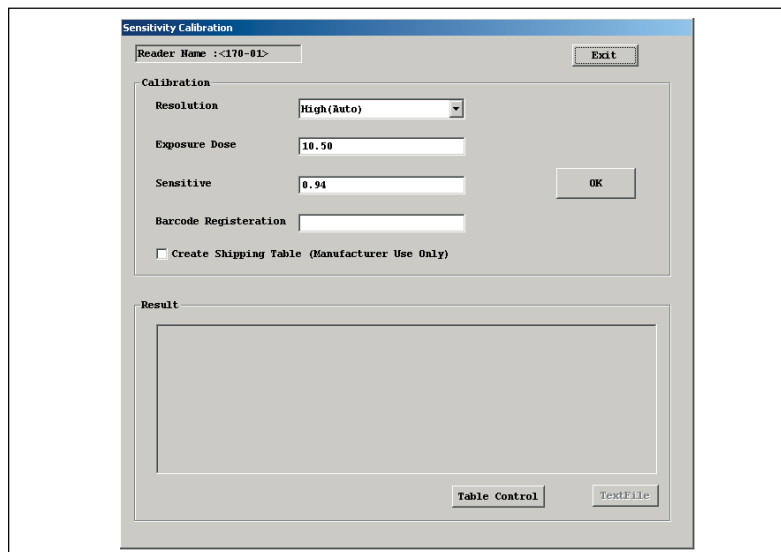
3. Click [Sensitivity].

“Reader Device” screen will be shown.



4. Select the REGIUS 190/170 on which the unevenness should be corrected , and click [OK].

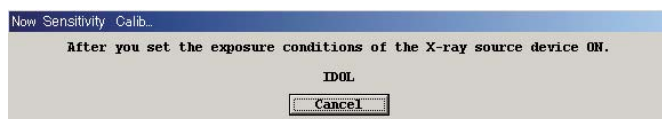
“Sensitivity Calib” screen will be shown.



5. Tick the [Auto Create], and select [High Res-A] of [Resolution].
 - Ticking and selecting the [Auto Create] enables to automatically create the “Stand. Resolution” calibration data using the “High Reso Std” calibration data. (Single exposure is sufficient for calibration)
6. Input the X-ray dose that is used for the exposure in “Exposure Dose”.
7. When the system is set to “Barcode Registration”, read the barcode on the cassette using a barcode reader. The barcode data read by the barcode reader will be displayed on the “barcode Registration”.
 - When the system is set to manual registration, it is not necessary to read the barcode.

8. Click [OK].

A dialogue indicating the progress of the sensitivity calibration will be shown.



9. Insert the cassette into the REGIUS 190/170.

As the image is read from the cassette, sensitivity correction is implemented. Upon completion of the uneven correction, corrected result will be shown in the “Result” column.
10. Click [Exit].

Returns to the “Service Tool” screen(Reader).
The corrected result of the unevenness will be saved in the sensitivity correction table of the CS-3.

8.3.2 Sensitivity Calibration of Mammo Cassette.

<Important>For the exposure of solid density in order to carry out a calibration, use the X-ray exposure device (light source is a tungsten bulb) for regular cassette, not the one for mammo exposure.

<Important>If only the bulb for mammo is available in the institute, carry out the solid density exposure at the nearest facility where the tungsten bulb is available, and carry out the unevenness calibration after 0.5 hours and within 3 hours.

<Important>Using the condition shown below, expose a solid density image on the cassette for the unevenness correction.

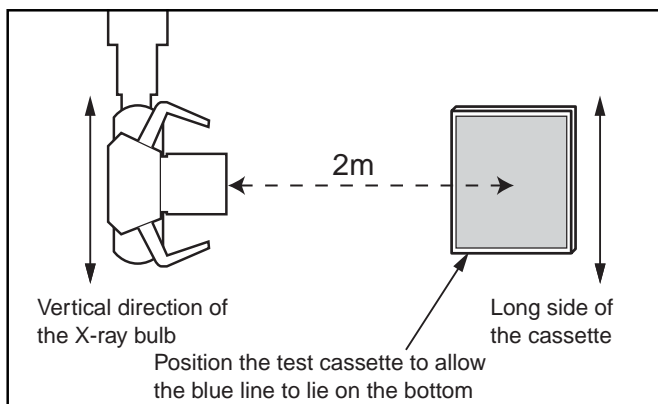
•Exposure Condition

Volt : 80kV (fixed)

mAs value : Set the X-ray dose so that it falls within 10mR \pm 2

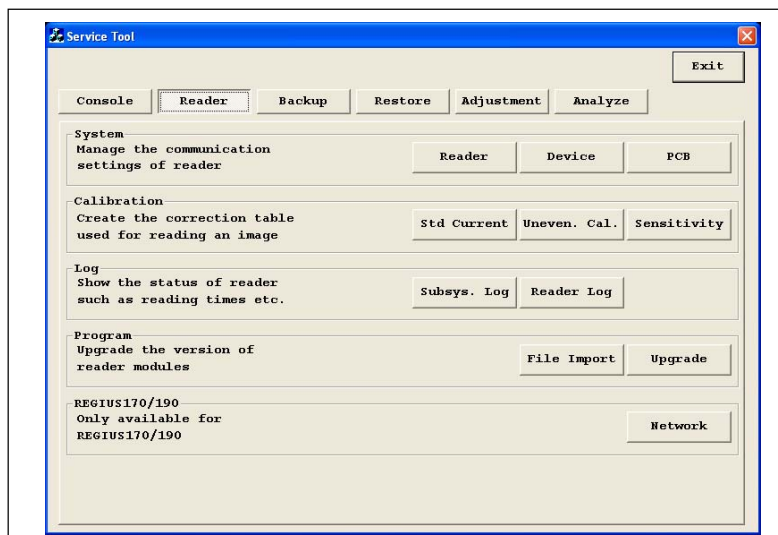
Plate - Bulb distance : 2m or more (recommended)

- Align the long side of the cassette with the vertical direction of the X-ray bulb. (Blue line of the cassette is positioned downward)



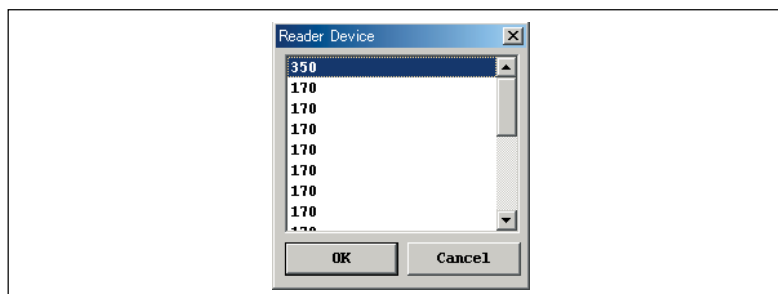
1. Click [Reader] of the “Service Tool”.

“Service Tool” screen (Reader) will be shown.



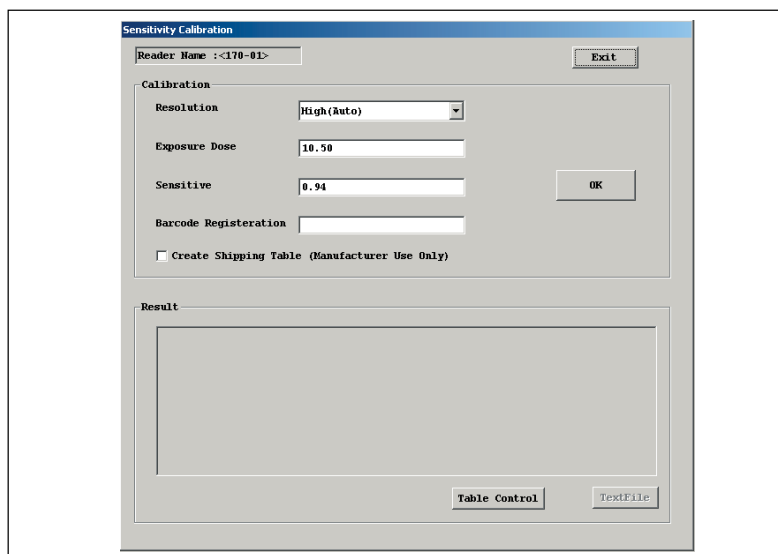
2. Click [Sensitivity].

“Reader Device” screen will be shown.



3. Select the REGIUS 190/170 that will be used in order to read the mammo cassette, and click [OK].

“Sensitivity Calib” screen will be shown.



4. REGIUS 170 : Untick the check box for [Auto Create], and select [High (Auto)] in "Resolution".
REGIUS 190 : Tick the check box for [Auto Create], and select [Mammo Hi-Res-B] in "Resolution".
5. Input "0.91" in [Sen Scale].
6. Input in "Exposure Dose" the value calculated by actually measured X-ray dose multiplied by coefficient " α " (ex: 1/2.5 for RP-4M) that is listed below .

Plate Type and its Coefficient

Plate	PV	Coefficient " α "
RP-3M	50	$(1/4) \times \beta$
RP-4M	51	$(1/2.5) \times \beta$
RP-5M	51	$(1/2.5) \times \beta$

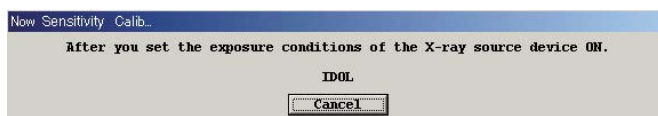
Whereby " β " represents a coefficient considering the time required for trans-action when the facility has no tungsten bulb and exposure has to be made in other facility. This coefficient should be;

Time t(h)	$\beta (=0.055\ln(t) + 0.75)$
0.5	0.79
1	0.75
2	0.71
3	0.69

Under normal condition; $\beta=1$

7. When the system is set to "barcode Registration", read the barcode on the cassette using a barcode reader. The barcode data read by the barcode reader will be displayed on the "barcode Registration".
 - When the system is set to manual registration, it is not necessary to read the barcode.
8. Click [OK].

A dialogue indicating the progress of the sensitivity calibration will be shown.



9. Insert the cassette into the REGIUS 190/170.

As the image is read from the cassette, sensitivity correction is implemented. Upon completion of the uneven correction, corrected result will be shown in the “Result” column.

Sensitivity Calibration

Reader Name : <170-01> Exit

Calibration

Resolution: High (Auto)

Exposure Dose: 10.50

Sensitive: 0.94 OK

Barcode Registration:

☐ Create Shipping Table (Manufacturer Use Only)

Result

Plate Version:70 Plate Size:18CM/24CM-M

<87.5um>

QR = 125 1782

QR = 250 1972

QR = 500 2220

Table Control TextFile

10. Click [Exit].

Returns to the “Service Tool” screen(Reader).

The corrected result of the unevenness will be saved in the sensitivity correction table of the CS-3.

Carrying out the above procedures completes calibration of REGIUS 190/170 for RP-4M.

Chap.9

Calibrating the Dedicated Reader

In this chapter, procedures for image check and adjustment of the dedicated reader is described. Calibration should be carried out only after completing the alignment adjustment of the dedicated reader (REGIUS 350).

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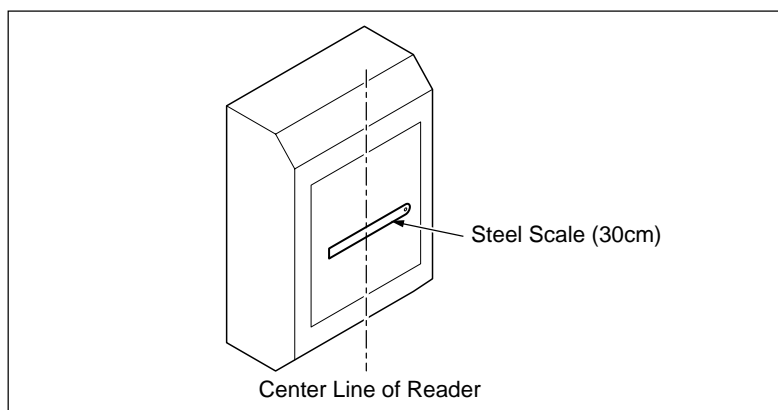
9.1 Checking the PLL Set Value

After completing the setting of the reader device following "Setting the dedicated reader in Detail", p.13, carry out a calibration so that the reader device read the image correctly.

<Important>The calibration procedures described below should be carried out after completing the alignment.

Check that the PLL value set at the factory (default) is suitable to the actual use.

1. Stick a steel scale (30cm) at the center of the front panel with its long side aligned to the main scanning direction.



2.

• Exposure Condition

Voltage	80kV
mAs value	15mAs
Distance	150cm

3. Start up the CS-1/CS-3 application. Input the order for the test purpose using the "New/Exam Search" screen, and start examination.

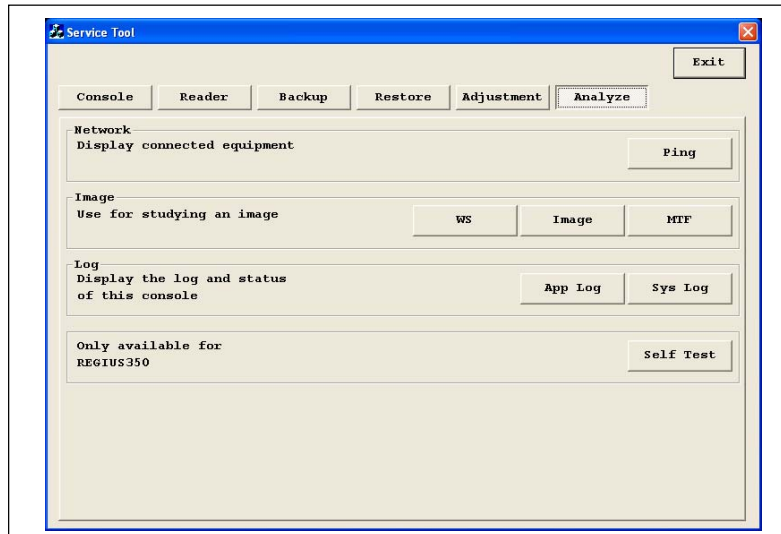
Patient ID : Facility-beta*
 Ex) Konica-beta ("*" is 1 byte text. It will increment by 1 when repeating the exposure of solid image)

Name : Exposure condition (Bulb voltage, X-ray dose, exposure distance)
 Ex) 80kv15mas150cm

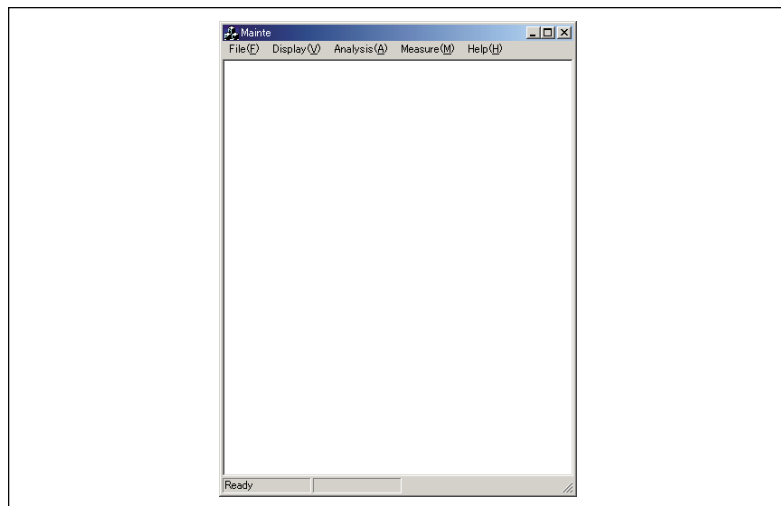
4. Select [TEST1] from the "Service" of the "TEST" in "Exam Tag Key Select" screen.
5. Click [OK] after reading to exit the examination.

6. Click [KONICAMINOLTA] and start up the Service Tool from the “REGIUS Service Screen”.
“Service Tool (Console)” screen will be shown.

7. Click [Analyze].
“Analyze” screen will be shown.



8. Click [Image].
Exam. software will start.



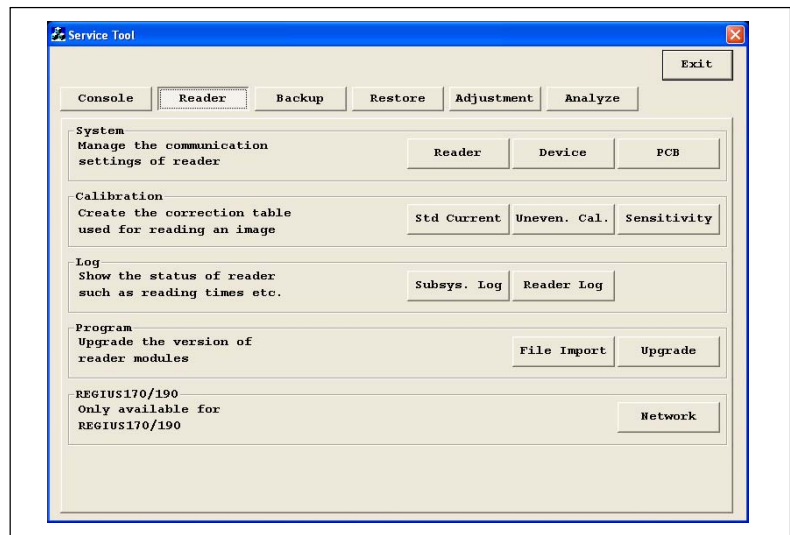
9. Select [Open (O)] in [File (F)].
“Open” dialogue will be shown.
10. Open the image exposed in the step.3.
11. Select [Display Size (V)] in [Display (V)] menu, and [All Image (A)] in the submenu.

- 12.** Surround the area of the steel scale (30cm) using a cursor of the mouse, and count the image pixels.
 Criterion : $1,744 \pm 11$ pixels ($305.2\text{mm} \pm 2\text{mm}$)
 Note ; at the irradiation distance of 150cm.

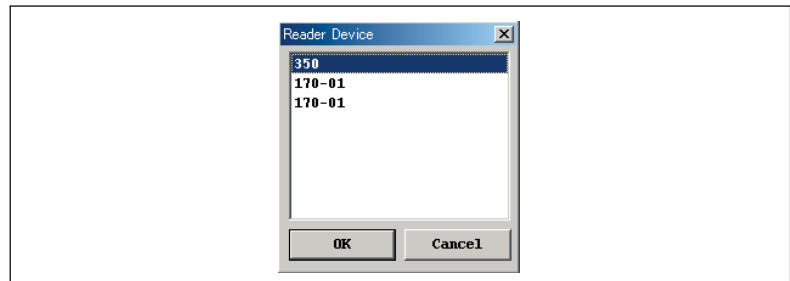
Within the criterion Proceed to " 2-Dimensional Calibration can be implemented by repeating the following calibration in series."

Out of the criterion Change the PLL setting following the procedures below.

- 11.** Click [Reader] of the Service Tool.



- 12.** Click [Device].
 "Reader Device" screen will be shown.



13.

Click the dedicated reader device.

- “Icu Device Command Read/Write” screen will be shown.

14.

Correct the setting for PLL pixel clock count.

Measured Pixels	PLL pixel clock setting
Larger than 1,755	decrease
Smaller than 1,733	Increase

15.

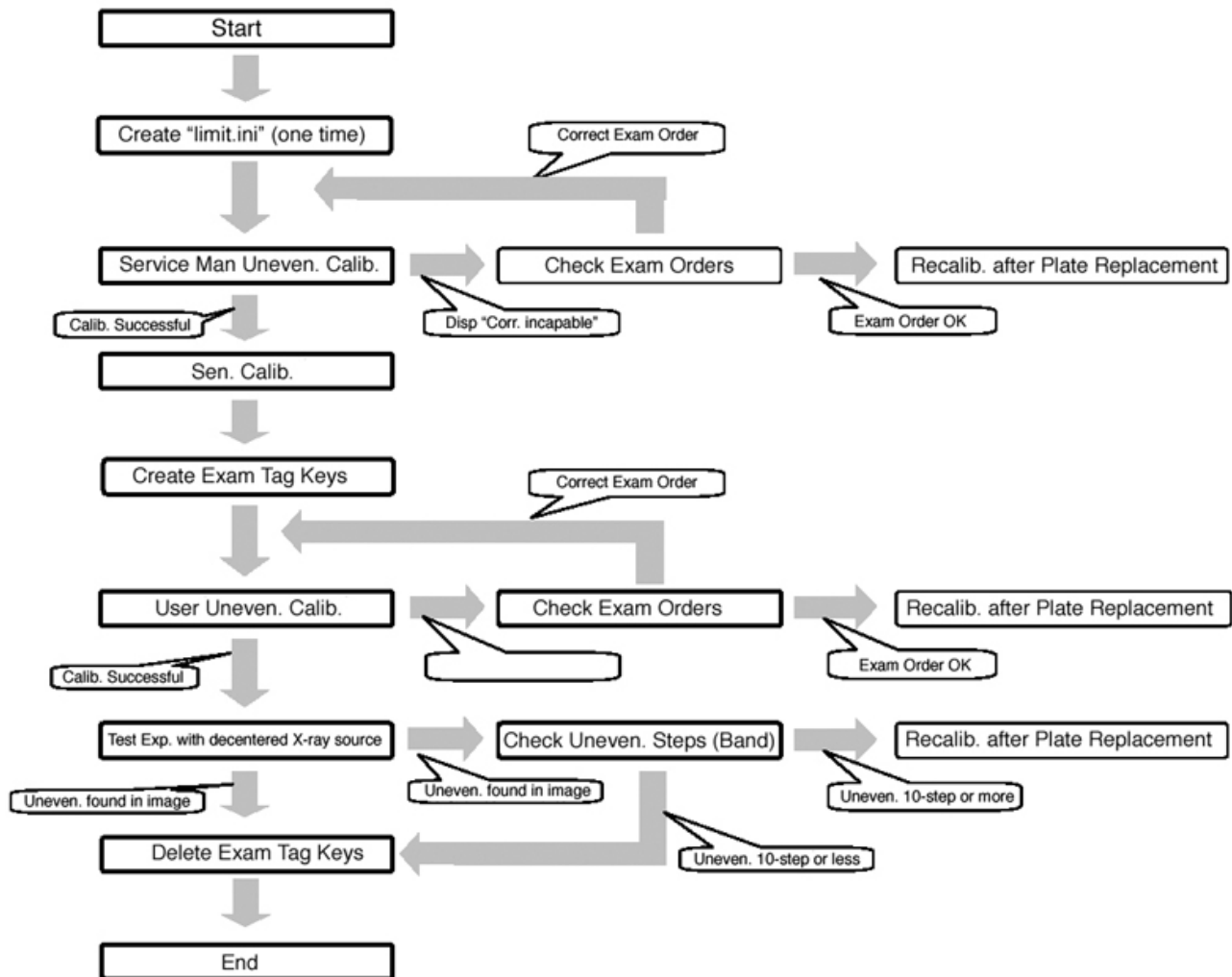
Click [Save & Exit] --> [Yes].

9.2 2-Dimensional Calibration

"2-Dimensional Calibration" is the unevenness calibration for the dedicated reader, and newly added to the features of CS-1/CS-1/CS-3 application.

9.2.1 Flow of 2-Dimensional Calibration

2-Dimensional Calibration can be implemented by repeating the following calibration in series.



9.2.2 Creating the Setup File "limit.ini"

In the cases where the initial data of the plate is not acquired (thus not after the plate change), it is required to create the setup file (limit.ini) before starting the 2-dimensional calibration.

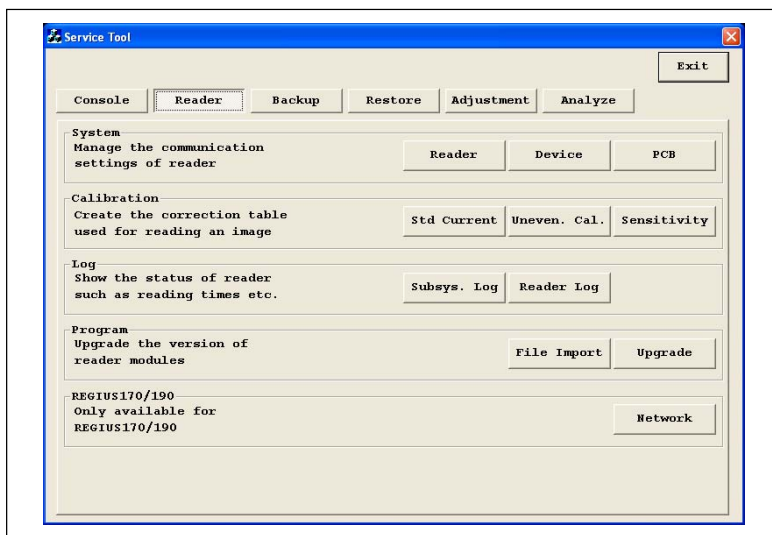
1. Select "Start" menu -> "Program" -> "Accessory" -> "Memo Pad" to start up the memo function of the Windows.
2. Input the following in 1 byte.

Reader 1	Reader 2	Input
Upright Reader (R350)	None	600,800
None	Upright Reader (R350)	800,600

3. Save the file under the file name "limit.ini" in "C:\Konicaminolta\CS-1\Env\Data\Correc" on the hard disk.
Though the file is a text file, make sure the extension is ".ini" when it is saved.

9.2.3 Service Man Calibration

1. Start up "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.
2. Click [Reader] of "Service Tool" screen.
"Service Tool" screen (Reader) will be shown.



3. Click [Reader] of "System".

4. On the “Reader Select” screen, select the [Regius 350] and click [OK].
 “ICU INFO” screen will be shown.

The screenshot shows the 'ICU INFO' window. On the left, a menu lists '350', '550', 'Reader Info. 1', 'Reader Info. 2', 'Reader Info. 3', 'X-ray Dev. Info. 1', 'X-ray Dev. Info. 2', and 'X-ray Dev. Info. 3'. The main area contains the following sections:

- Device Information:** Device Name: SBP2HRATOC_Systems_Inc.61EEE1394_-SCSI-36LJN0000c0, Get
- Version Information:** Version: 1.23T45, Installation Date: 2000, Aug, 1st, Installation Time: 0 hr., 0 min., 0 sec.
- Unevenness Calibration:** Configuration Date: 2002, Aug, 12th, Configuration Time: 17 hr., 13 min., 58 sec.
- Sensitive Calibration:** Configuration Date: 2001, Jul, 24th, Configuration Time: 16 hr., 23 min., 48 sec.

Buttons: Save&Exit, Cancel

5. Select “Read Info 2” in the lower left menu.
 “ICU INFO/Read Info” screen will be shown.

The screenshot shows the 'ICU INFO' window with 'Reader Info. 2' selected in the left menu. The main area contains the following sections:

- Reader Information:** Uneven Calibration: Normal, SP: Normal, F: Normal, Erase Lamp: Normal, Erase Speed(Auto): 105 [mm/sec], Erase Speed(Manual): 15 [mm/sec], Reader Sleep Timer: ON, 3600 [sec], Exposure Position: Normal, Panel Switch: Normal, Phosfer Type: [empty field], Default Exposure Time: ON

Buttons: Save&Exit, Cancel

6. Select “2-Dim” for the “Uneven. Calibration”.
7. Click [Save & Exit], then [YES] of the confirmation dialogue.
 Returns to the “Service Tool (Reader)” screen.
- When there are two dedicated readers are connected to the CS-3, setting the Uneven. Correction to “2-Dim” on one unit will automatically set the other to the “2-Dim”.

8. Set the exposure condition of X-ray generator.

•Exposure Condition

Volt : 80kV (fixed)

mAs value : Set the X-ray dose at 40mAs at 2m or 10mAs at 1m as a target.

When the whole plate is not covered by the exposure field (collimation), for example at the institute where 1m grid is used, select the distance so that whole plate is covered.

9. Click [Uneven. Correct] of "Calibration" on the "Service Tool (Reader)" screen.

10. Upon display of the "Reader Select" screen, select the reader to be calibrated, and click [OK]. "Uneven. Config" screen will be shown.

11. Select "Uneven. Calib." in the left menu. "Uneven. Calib." screen will be shown.

12. Select "87.5 μ m" in the "Pixel Size" list. When it is a calibration first time since the plate replacement, tick the "Plate Init. Data Reset" box to activate.

13. Click [OK]. Initialization (deletion) of the Reader starts.

14. When a message, "Is the X-ray dose set to the specified" is shown, turn ON the irradiation SW of the X-ray generator device.

- After the exposure is made, the reader device starts reading operation provided that the connection is correctly made.
- Upon the completion of the reading, a consequent result of the unevenness calibration will be shown.
- If a message, "Corr. Incapable" is shown, refer to ["9.2.9 Actions when correction failed"](#) .
- Following information is displayed under the column "Plate Status".
Plate Status : XXsteps(YY)
"XX" indicates the uneven steps generated since the initial plate.
"Y" indicates the expected months before it reaches the limit (1 ~ 12). "12+" means it has a limit over 12 months.
Text strings as following may be displayed.
"plate_data_was_reset";
This means "plate data was reset".
"immediately_after_exchange_plate" ;
This means very little unevenness due to the immediate situation after the plate replacement.

“____”;

This means “no initial data for the plate exists”.

MAX : Maximum signal value per different range. (not the Dmax)

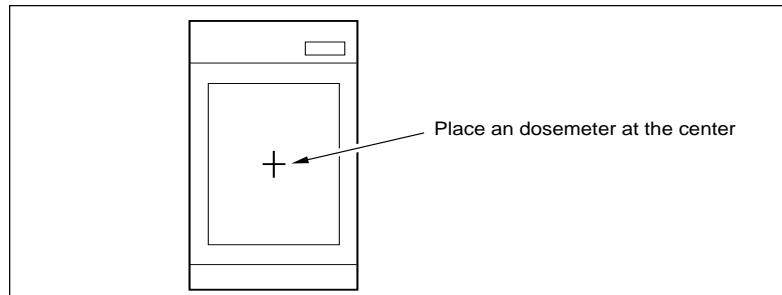
MIN : Minimum signal value per different range. (not the Dmin)

DIFF : Physical unevenness resides on the plate.

15. After completing the uneven. calibration of the image (87.5 μ m pitch), select 175 μ m in the “Pixel Size” list.
16. In the same manner, repeat the uneven. calibration for the image at 175 μ m pitch.
17. After completing the uneven. calibration for both 87.5 μ m and 175 μ m images, click [Save & Exit], then [YES].
Returns to the “Service Tool (Reader)” screen.
18. Click [Back] to exit the “Service Tool”.
19. Click [System Restart] of the “REGIUS Service” screen to restart the CS-3.

9.2.4 Sensitivity Calibration

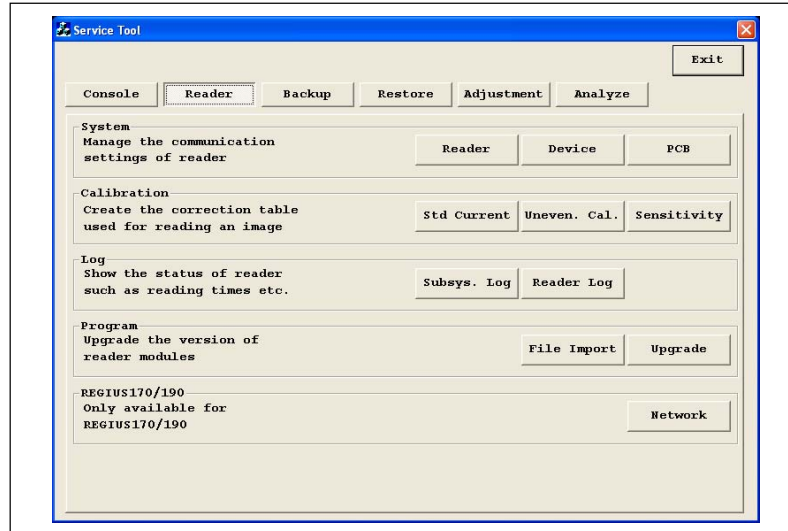
1. Set the exposure condition of the X-ray generator device.
Condition : Same as that for uneven. calibration
2. Release the interlock button on the x-ray generator device.
3. Stick an dosimeter at the center of the front panel of the reader unit.
 - Because the paint on the front panel is easily fell off, adhesive tape should be stuck on the outer frame of the unit.



4. Measure the X-ray dose.
 - Narrower the exposure field to 10cm x 15cm.
 - Calculate the average after measuring 3 times.
5. Remove the dosimeter after completing the dose measurement.
6. Switch the interlock button of the X-ray generator to the interlock position.
7. Set the X-ray exposure field (collimation) wider than that of the reading area(17"x17").
8. Start the "Service Tool" from the "REGIUS Service" screen.

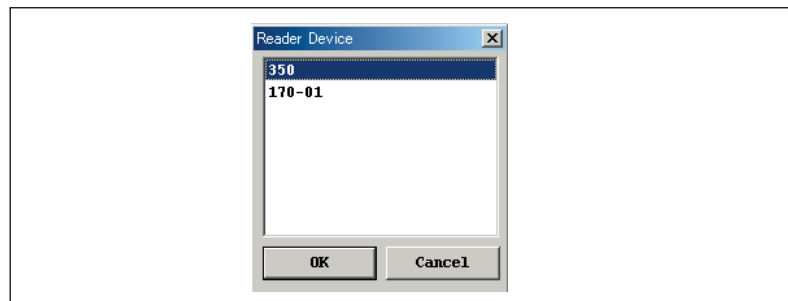
9. Click [Reader] of the Service Tool.

“Reader” screen will be shown.



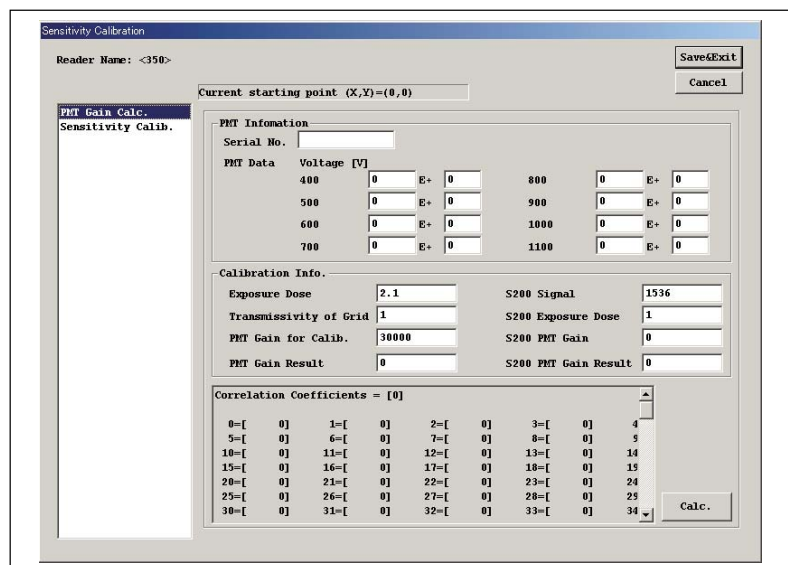
10. Click [Sensitivity].

“Reader Device” screen will be shown.



11. Select “Upright(350)”, and click [OK].

- After reading the data generated by the photomultiplier of the reader device, “Sensitivity Calibration” screen will be shown.



12. In the “PMT Information” area of the screen, input the values listed on the data sheet attached to the photomultiplier.

The screenshot shows the 'PMT Information' section of a software interface. It includes a 'Serial No.' field and a 'PMT Data' table. The table has columns for Voltage [V] and corresponding values. The values are: 400, 500, 600, 700, 800, 900, 1000, 1100. Each value is followed by a unit 'E+' and a blank space for input.

Voltage [V]	Value	Unit
400	0	E+
500	0	E+
600	0	E+
700	0	E+
800	0	E+
900	0	E+
1000	0	E+
1100	0	E+

13. In the “Exposure Dose”, input the average of the dose measured in the step.4.

The screenshot shows the 'Calibration Info.' section of a software interface. It includes input fields for 'Exposure Dose' (2.1), 'Transmissivity of Grid' (1), 'PMT Gain for Calib.' (30000), and 'PMT Gain Result' (0). It also displays 'S200 Signal' (1536), 'S200 Exposure Dose' (1), 'S200 PMT Gain' (0), and 'S200 PMT Gain Result' (0). Below these fields is a section for 'Correlation Coefficients = [0]' with a grid of 14 columns and 4 rows of input fields.

Exposure Dose	Transmissivity of Grid	PMT Gain for Calib.	PMT Gain Result	S200 Signal	S200 Exposure Dose	S200 PMT Gain	S200 PMT Gain Result
2.1	1	30000	0	1536	1	0	0

14. In the “Transmission of Grid”, input “0.5” for “with grid”, “1.0” for “without grid”.

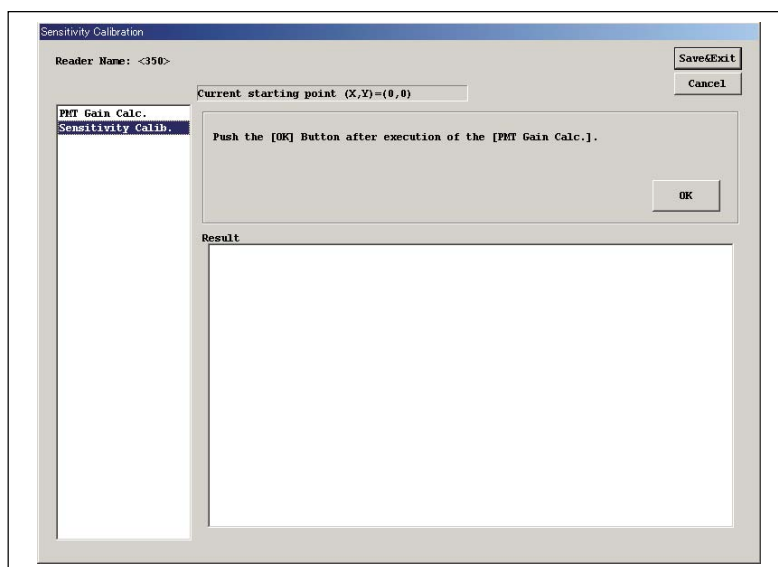
15. Click [Calc.].

The calculated result of the photomultiplier gain table will be shown .

The screenshot shows the 'Correlation Coefficients = [0]' section of a software interface. It displays a grid of 34 input fields arranged in 7 rows and 5 columns. The fields are labeled from 0 to 34. A 'Calc.' button is visible at the bottom right.

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]	[0]

16. Select [Sensitivity Calib.] in the left menu.



17. Click [OK].

- The reader device starts initialization (erasing operation).

18. When a message, "Is the X-ray dose set to the specified" is shown, turn ON the irradiation SW of the X-ray generator device.

- After the exposure is made, the reader device starts reading operation provided that the connection is correctly made.
- Upon the completion of the reading, a consequent result of the unevenness calibration will be shown.

19. Click [Save & Exit] , then [YES]..

Click [Cancel] to save the measured result only.

20. Click [Back] to exit the "Service Tool".

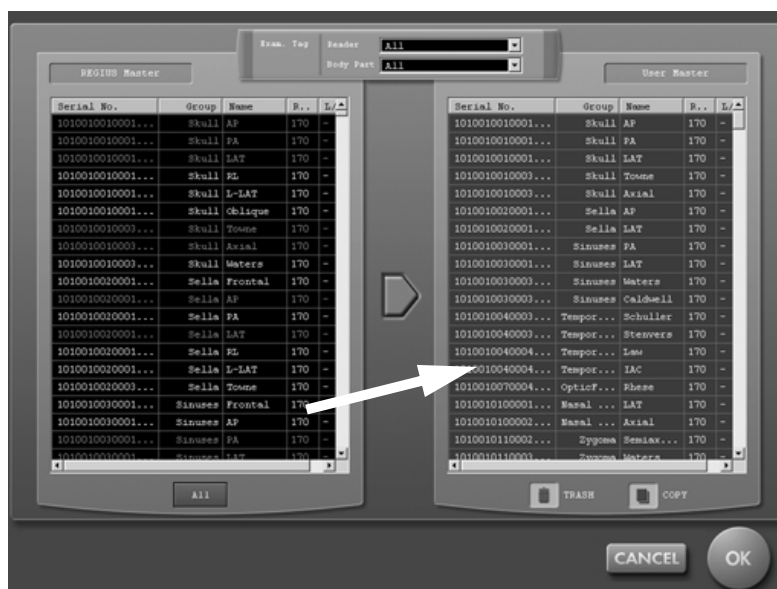
9.2.5 Creating the Exam Tag Keys for Calibration

Create the exam tag keys for user calibration using the CS-1/CS-1/CS-3 application.

1. Start up the CS-1/CS-1/CS-3 application by clicking the [CS-1/CS-3] of the "REGIUS Service" screen.
2. Start up the "User Tool" from the "System" menu by clicking the [KON-ICA MINOLTA].
"User Tool" screen will be shown.

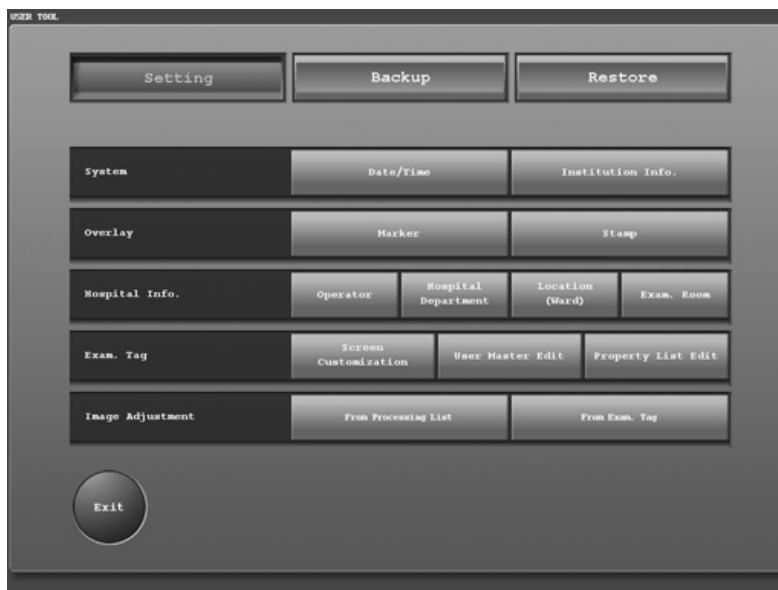


3. Click [User Master Edit] of "Exam Tag".
4. Select the "350 Corr" from the REGIUS Master and copy it to the user master.

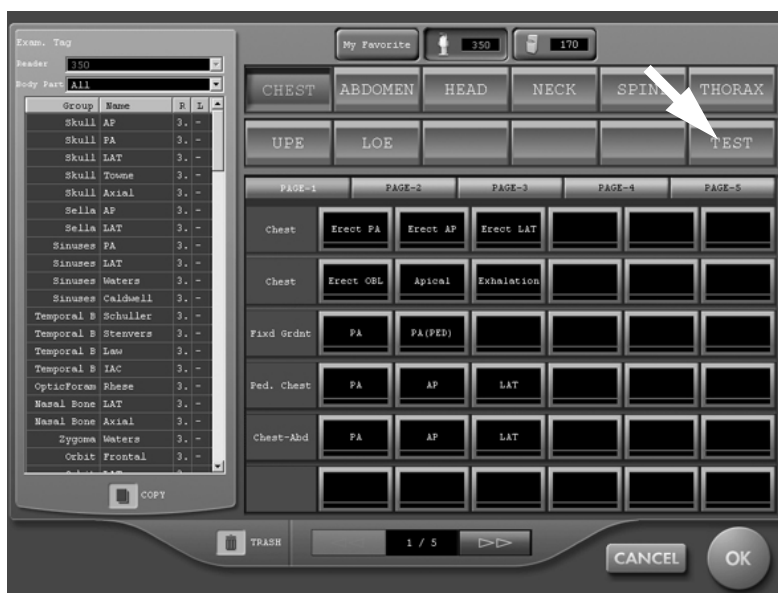


Select the reader device in the "Reader" of "Exam Tag", and scroll down the REGIUS Master to its bottom. "350 Corr" is located in the second line from the bottom.

5. Click [OK] and then [YES] on the confirmation dialogue.
Returns to the “User Tool (Setup)” screen.



6. Click [Screen Customization] of “Exam Tag”.
7. Click the [Reader Name] button, then click [TEST] of rough classification.



8. Select the “350 Corr” in the User Master and drag it onto the spare exam tag key.
9. Click [OK] and then click [YES].

10. Click [Back] to exit the User Tool. Then switch to the “Exam Search” screen of the CS-1/CS-1/CS-3 application from the “System” menu.

9.2.6 User Calibration

1. Set the exposure condition of the X-ray generator as that of the Service Man Calibration.
2. Input the order for test purpose in the “New/Exam Search” screen, and click “Exam Start”.

3. Select “350 Corr” in the “Exam Tag Select” screen, and click [OK].

4. Implement “Exposure (Calibration)” after the reader device is made ready.
After reading is completed, A dialogue indicating “Now calibrating. Wait a while” will be shown, and the correction data is being created.
 - Flat white image will be displayed on teh screen while it is calibrating.
 - If “Calibration failed. Service call” is displayed while calculation being executed, it means the calibration failed. Refer to ["9.2.9 Actions when correction failed"](#) .
5. Upon display of “Calibration completed”, click [YES].
6. Click [OK] , then [Exit].
7. Input the order for test purpose in the “New/Exam Search” screen again, and click “Exam Start”.

Operator: Filter Schedule 127 Item Page 3 Item

Patient ID	Patient Name	Sex	Birth Date	Department	Location (Main)	Exam Tag	Sheets	Status
TEST		—		//		0/0		

New/Search Modify Delete Filter Refresh Perform

8. Select “TEST1” in the “Service” group, and click [OK].



9. Expose the solid density and check the image is corrected as intended.
- If the image is not corrected as intended, check the exposure condition and repeat the step 1 onward to implement the user calibration again.

9.2.7 Checking the Grid Interference

After completing all calibration procedures, check that there is no interference caused by grid.

1. Vertically move the X-ray generator 2cm upward against the grid.
2. Input the order for test purpose in the “New/Exam Search” screen , and click “Exam Start”.

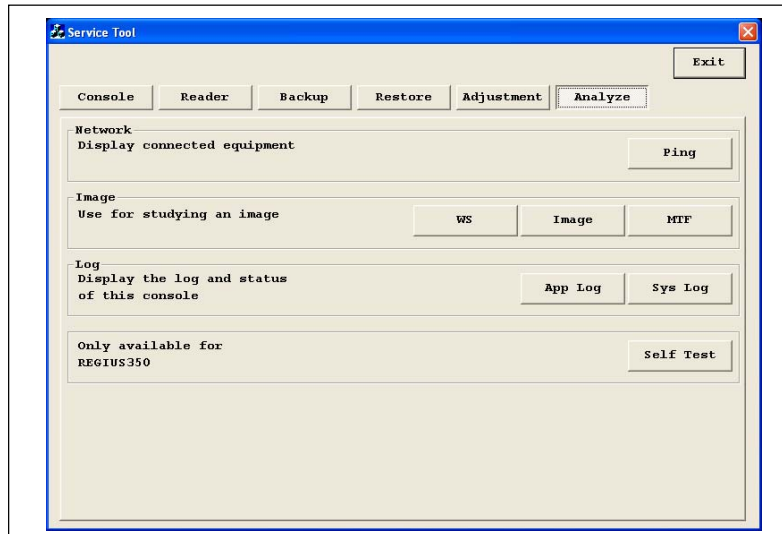


3. Select “TEST1” in the “Service” group, and click [OK].

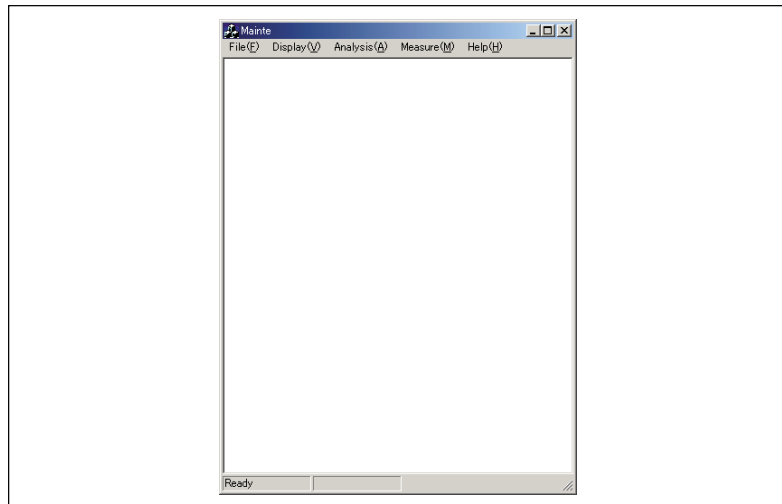


4. Expose the solid density image.

5. Click [KONICA MINOLTA] to start the “Service Tool” from the “REGIUS Service” screen.
"Service Tool (Console)" will be shown.
6. Click [Analysis] of the “Service Tool (Console)” screen.
“Service Tool (Analyze)” screen will be shown.



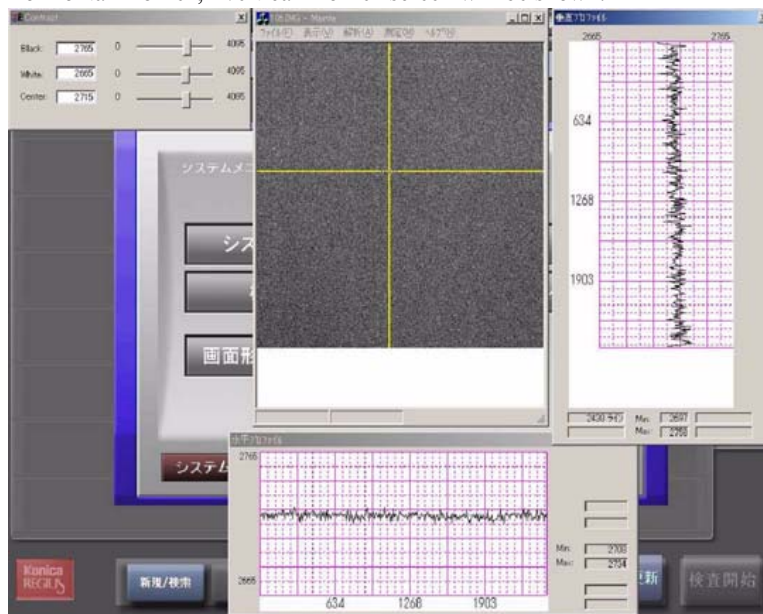
7. Click [Image].
Exam. software will start.



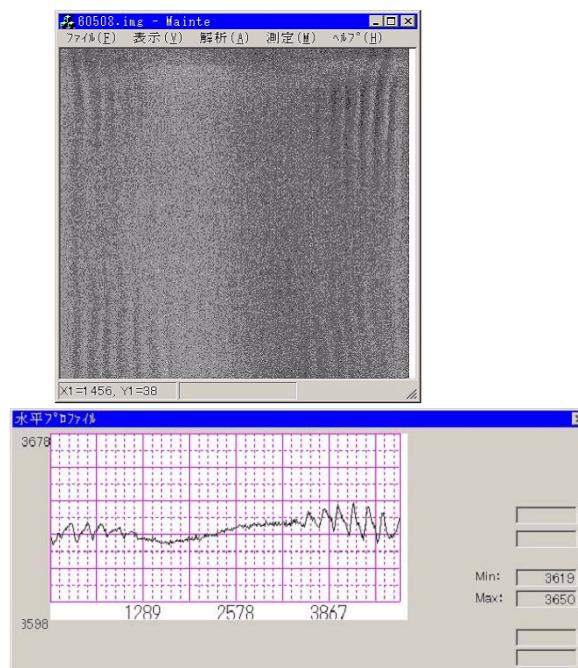
8. Select [Open (O)] in [File (F)].
“Open” dialogue will be shown.
9. Select from the image files exposed in the step.4.

10. Select [Profile (Horizontal) (S)], [Profile (Vertical) (V)] from [Analysis (A)] menu.

“Horizontal Profile”, “Vertical Profile” screen will be shown.



11. Check that there is not unevenness in the displayed image or in the horizontal profile due to interference of the grid.



- Check the oscillation of the streaks of the horizontal profile.
- If the oscillation of the streaks is 10 steps or less, it is within the allowance. If it exceeds 10 steps, plate should be replaced.

<Important> When the calibration is carried out at the different distance than its focusing point, unevenness shown below may appear.

12. Exit the "Examination Tool" and click [Back] of the "Service Tool (Analyze)" to switch to the "REGIUS Service" screen.

9.2.8 Deleting the Exam Tag Keys for Calibration

When all calibration procedures and checks of images are completed, delete the exam tag key created for calibration purpose from the “Exam Tag Select” screen.

1. Start up the CS-1/CS-1/CS-3 application by clicking the [CS-1/CS-3] of the “REGIUS Service” screen.
2. Start up the “User Tool” from the “System” menu by clicking the [KONICA MINOLTA].
“User Tool” screen will be shown.



3. Click [User Master Edit] of “Exam Tag”.
4. Click [Reader Device Name], and click [TEST] of rough classification.

5. Drag the “Corr” group to the trash bin to delete.



6. Click [OK], and [YES] of the confirmation dialogue.
7. Click [Back] to exit the “User Tool”, and switch to the CS-1/CS-1/CS-3 application from the “System” menu.
8. Input the order for test purpose in the “New/Exam Search” screen, and click “Exam Start”.



9. Check on the “Exam Tag Select” screen that the [Corr] group and [350 Corr] buttons are deleted.

- 10.** Click [CANCEL] to abort the examination, and delete the temporary created order from the "Exam Search" screen.
All of 2-Dimension calibration has been completed.

9.2.9 Actions when correction failed

If a message "Corr. Incapable" is shown while "Service Man Calibration" or "User Calibration" is in process, the reason is that maximum step numbers of the correction data have exceeded the correction limit.

If such happens, follow the instruction below to remedy the situation.

Reason	Remedies
Exposure field does not cover whole plate or any foreign object stuck to the plate	Check the collimation, bulb position, foreign objects, etc. and carry out the calibration again.
Unevenness of the plate exceeds the correction limit.	Check the collimation, bulb position, foreign objects, etc. If no failure with these, replace the plate.

FYI

How to judge the correction limit of the plate differs depending on the availability of the initial data of the plate.

- When no initial data of the plate is available
Check whether the unevenness on the plate (DIFF value of the calibration result) exceeds the correction limit. (600 steps for upright reader)
- When the initial data of the plate is available.
Check whether the unevenness range exceeds the correction limit (300 steps) from the initial data of the plate.

9.3 Normal Calibration

In this section, normal calibration procedures for REGIUS 350 is described.

9.3.1 Unevenness Calibration

Unevenness calibration should be carried out when the plate is removed or replaced in order to create the data with which the unevenness of the image shall be corrected by exposing and calculating the resulted data.

1. Set the exposure condition of the X-ray generator device.

•Exposure Condition

Voltage : 80kV (fixed)

mAs value : 40mAs

Distance : Focul length of the grid.

Grid : Set to the condition used in the institute.

Filter : none

- mAs value is a target value when the distance is 2m, with grid (transmittance 50%).
- When the exposure dose is equivalent to PMT gain 30000, set the max value for whole image data to 1500 ~ 3000.

•Calculation of the dose

$$X=40 \text{ (mAs)} \times D^2 / 2^2$$

X : dose to be calculated (mAs)

d : exposure distance

Ex : at the exposure distance of 1.8m

$$X=40(\text{mAs}) \times 1.82/22 = 33.12 \text{ (approx 33 mAs)}$$

2. Start up the CS-3, then "Service Tool" from "REGIUS Service" screen.

3. Click [Reader] of "Service Tool" screen.

4. When the “Reader Select” screen appears, select the [R350] and click [OK].
“ICU INFO” screen will be displayed.

ICU INFO

350
550

Reader Info. 1
Reader Info. 2
Reader Info. 3
X-ray Dev. Info. 1
X-ray Dev. Info. 2
X-ray Dev. Info. 3

Device Information
Device Name: SDP2HRATOC_Systems_Inc.61EEE1394_-_SCSI-36LJRH000c0 Get

Version Information
Version: 1.23T45
Installation Date: 2000 Aug 1st
Installation Time: 0 hr. 0 min. 0 sec.

Unevenness Calibration
Configuration Date: 2002 Aug 12th
Configuration Time: 17 hr. 13 min. 58 sec.

Sensitive Calibration
Configuration Date: 2001 Jul 24th
Configuration Time: 16 hr. 23 min. 48 sec.

Save&Exit
Cancel

5. Select “Read Info 2” in the lower left menu.
“ICU INFO/Read Info” screen will be shown.

Unevenness Calibration

ReaderName: <350>

Current starting point (X,Y)=(0,0)

SMOOTH	0	default=0
P HOSEI	1	default=1
KAGEN	0	default=0
S LIMIT	512	default=512
F LIMIT	512	default=512
P LIMIT	64	default=64
S CUT	40	default=40
F CUT	40	default=40
P AREA	205	default=205
WABU	1	default=1
WIDTH	2430	default=2430
Da175	0	default=0
Db175	0	default=0
Da875	0	default=0
Db875	0	default=0

Save&Exit
Cancel

6. Select “Normal” for the “Uneven. Calibration”.
7. Click [Save & Exit], then [YES].

Returns to the “Service Tool (Reader)” screen.

- When there are two dedicated readers are connected to the CS-3, setting the Uneven. Correction to “Normal” on one unit will automatically set the other to the “Normal”.

8. Click [Uneven. Correct] of “Calibration” on the “Service Tool (Reader)” screen.
9. Upon display of the “Reader Select” screen, select the reader to be calibrated, and click [OK].
“Uneven. Config” screen will be shown.

- When figures other than “0” is displayed under “Da175”, “Db175”, “Da875”, “Db875”, input “0”.

10. Select “Uneven. Calib.” in the left menu.
“Uneven. Calib.” screen will be shown.

11. Select “175 μ m” in the “Pixel Size” list.

12. Click [OK].
- When two or more readers are connected, “Reader Select” screen will be displayed. Select the reader to be calibrated, then click [OK].
 - Initialization (deletion) of the Reader starts.

13. When a message, “Is the X-ray dose set to the specified” is shown, turn ON the irradiation SW of the X-ray generator device.
- After the exposure is made, the reader device starts reading operation provided that the connection is correctly made.
 - Upon the completion of the reading, a consequent result of the unevenness calibration will be shown.

14. Check that the displayed result falls within criteria.

Item	Criteria	
Whole Image Data	Max should be 1500 ~3000	If the result is out of criteria. <ul style="list-style-type: none"> • Adjust the dose to fall within 1500 ~ 3000. • Check no foreign object (cables, etc.) is exposed. • When exposure field is decentered, expose with longer distance.
S Data	Max - Min (difference) should be 500 or less	
P Data	Max - Min (difference) should be 60 or less	
F Data	Max - Min (difference) should be 500 or less	

15. After completing the uneven. calibration of the image (175 μ m pitch), select 87.5 μ m in the “Pixel Size” list.

16. In the same manner, repeat the uneven. calibration for the image at 175 μ m pitch.

17. To update the uneven calibration, click [Save & Exit], then [YES].

Click [CANCEL] to save the test result. In this case, the data of the reader will not be altered, while the test result will be stored in the hard disk of the CS-3. Next time when the “Uneven Calibration Setup” screen is displayed, the data stored here will be displayed.

18. Click [YES] of the confirmation dialogue.

19. Reset the collimation (shutter) to the original status.

20. Proceed to the next section.

9.3.2 Sensitivity Calibration

In the case such as an X-ray generator device changed its condition, carry out an sensitivity calibration to correct the differences in X-ray dose of the x-ray generator, difference in sensitivity among the reader devices by performing the exposure and calculation.

<Important>Sensitivity calibration should be carried out after completing the uniformity calibration.

1. Confirm that " 2-Dimensional Calibration can be implemented by repeating the following calibration in series." is completed.

2. Set the exposure condition of the X-ray generator device.

•Exposure Condition

Voltage : 80kV (fixed)

mAs value : Set the "mAs" value equivalent to 10mR.

•1.2 mAs value is a target value when the distance is 2m, with grid (transmittance 50%).

• Be sure that the "mAs" is set to the equivalence of 10mR.

Distance : Same as that for the unevenness calibration.

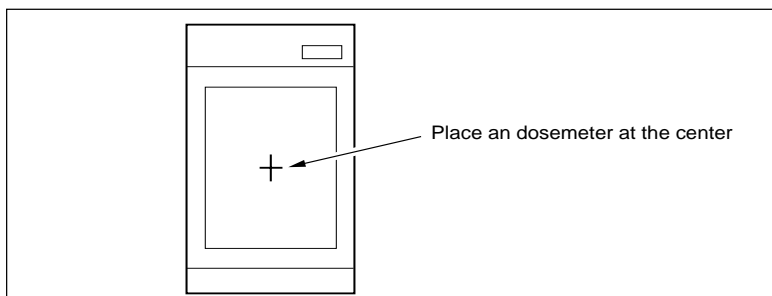
Grid : use an actual condition for the examination.

Filter : none

3. Release the interlock button on the x-ray generator device.

4. Stick an dosimeter at the center of the front panel of the reader unit.

- Because the paint on the front panel is easily fell off, adhesive tape should be stuck on the outer frame of the unit.



5. Measure the X-ray dose.

- Narrower the exposure field to 10cm x 15cm.
- Calculate the average after measuring 3 times.

6. Remove the dosimeter after completing the dose measurement.

7. Switch the interlock button of the X-ray generator to the interlock position.

8. Set the X-ray exposure field wider than that of the reading area(17"x17").
9. Click [Sensitive] of the "Calibration" "Service Tool (Reader)".
10. When "Reader Select" screen is displayed, select the reader to be calibrated, and click [OK].
 - After reading the data generated by the photomultiplier of the reader device, "Sensitivity Calibration" screen will be shown.

Sensitivity Calibration

Reader Name: -350-

Current starting point (X,Y)=(0,0)

Save&Exit
Cancel

PMT Gain Calc.
Sensitivity Calib.

PMT Information

Serial No. []

PMT Data

Voltage [V]	0	E+	0	800	0	E+	0
400	0	E+	0	900	0	E+	0
500	0	E+	0	1000	0	E+	0
600	0	E+	0	1100	0	E+	0
700	0	E+	0				

Calibration Info.

Exposure Dose [2.1] S200 Signal [1536]

Transmissivity of Grid [1] S200 Exposure Dose [1]

PMT Gain for Calib. [30000] S200 PMT Gain [0]

PMT Gain Result [0] S200 PMT Gain Result [0]

Correlation Coefficients = [0]

0=[0]	1=[0]	2=[0]	3=[0]	4
5=[0]	6=[0]	7=[0]	8=[0]	5
10=[0]	11=[0]	12=[0]	13=[0]	14
15=[0]	16=[0]	17=[0]	18=[0]	15
20=[0]	21=[0]	22=[0]	23=[0]	24
25=[0]	26=[0]	27=[0]	28=[0]	25
30=[0]	31=[0]	32=[0]	33=[0]	34

Calc.

11. In the "PMT Information" area of the screen, input the values listed on the data sheet attached to the photomultiplier.

PMT Gain Calc.
Sensitivity Calib.

PMT Information

Serial No. []

PMT Data

Voltage [V]	0	E+	0	800	0	E+	0
400	0	E+	0	900	0	E+	0
500	0	E+	0	1000	0	E+	0
600	0	E+	0	1100	0	E+	0
700	0	E+	0				

Calibration Info.

12. In the “Exposure Dose”, input the average of the dose measured in the step.5.

Calibration Info.

Exposure Dose	2.1	S200 Signal	1536
Transmissivity of Grid	1	S200 Exposure Dose	1
PMT Gain for Calib.	30000	S200 PMT Gain	0
PMT Gain Result	0	S200 PMT Gain Result	0

Correlation Coefficients = [0]

0=[0]	1=[0]	2=[0]	3=[0]	4
5=[0]	6=[0]	7=[0]	8=[0]	5
10=[0]	11=[0]	12=[0]	13=[0]	14

13. In the “Grid Transparency”, input “0.5” for “with grid”, “1.0” for “without grid”.

14. Click [Calc.].

The calculated result of the photomultiplier gain table will be shown .

Correlation Coefficients = [0]

0=[0]	1=[0]	2=[0]	3=[0]	4
5=[0]	6=[0]	7=[0]	8=[0]	5
10=[0]	11=[0]	12=[0]	13=[0]	14
15=[0]	16=[0]	17=[0]	18=[0]	15
20=[0]	21=[0]	22=[0]	23=[0]	24
25=[0]	26=[0]	27=[0]	28=[0]	25
30=[0]	31=[0]	32=[0]	33=[0]	34

Calc.

15. Select [Sensitivity Calib.] in the left menu.

Sensitivity Calibration

Reader Name: <350>

Current starting point (X,Y)=(0,0)

Save&Exit
Cancel

PMT Gain Calc.
Sensitivity Calib.

Push the [OK] Button after execution of the [PMT Gain Calc.].

OK

Result

16. Click [OK].
 - When 2 dedicated readers are networked, selection dialogue will be shown. Select the reader to be calibrated, and click [OK].
 - The reader device starts initialization (erasing operation).
17. When a message, "Is the X-ray dose set to the specified" is shown, turn ON the irradiation SW of the X-ray generator device.
 - After the exposure is made, the reader device starts reading operation provided that the connection is correctly made.
 - Upon the completion of the reading, a consequent result of the unevenness calibration will be shown.

18. Check that the displayed result falls within criteria.

Item	Criteria
S200PMT Gain Set Value	30000 ~ 50000

- If the result is out of the criteria, repeat the calibration after checking the "Exposure filed/condition".

19. Make sure to take note of the "Ave Calc Result" and "S200PMT Gain Set Value".

20. To update the sensitivity calibration data of the reader, click [Save & Exit], then [YES].
Click [CANCEL] to save the test result. In this case, the data of the reader will not be altered, while the test result will be stored in the hard disk of the CS-3. Next time when the "Sen Calibration Setup" screen is displayed, the data stored here will be displayed.

21. Click [YES] of the confirmation dialogue.

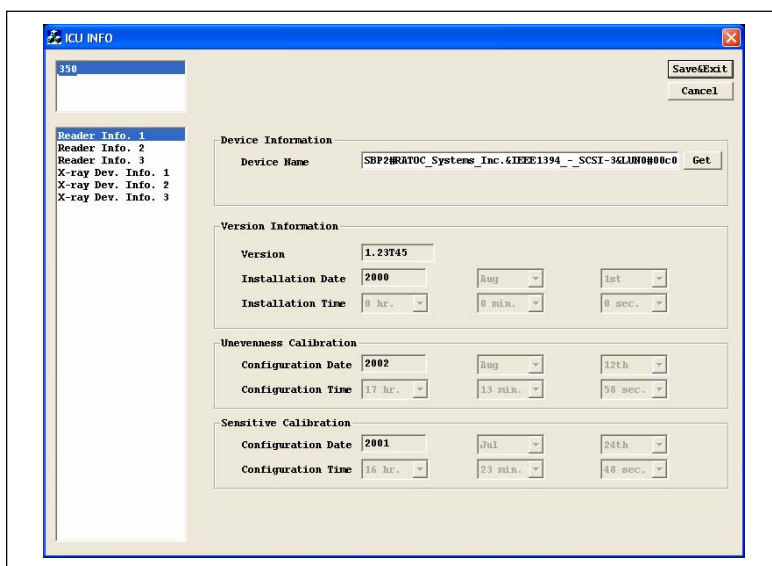
22. After completing the sensitivity calibration by implementing procedures in the above, proceed to ["9.4 Checking Image and Examining MTF Chart"](#) in the following pages.

9.4 Checking Image and Examining MTF Chart

After completing the unevenness correction and sensitivity correction, expose the solid density image, then using the image-check tool, check the image and evaluate the MTF chart.

9.4.1 Checking Image

1. Confirm that the "9.2.4 Sensitivity Calibration" is completed.
2. Set the exposure condition of the X-ray generator device.
 - Exposure Condition
 - Voltage : 80kV (fixed)
 - mAs value : 10mAs
 - Distance : Make an exposure under 3 conditions shown below.
 - 1) Grid's focus length
 - 2) Max. exposure distance
 - 3) Min. exposure distance
 - Grid : use an actual condition for the examination.
 - Filter : none
 - mAs value is a target value when the distance is 2m, with grid (transmittance 50%).
3. Click [Reader] of the Service Tool.
4. Click [Reader].
5. When there are two readers connected, select the reader name in the upper left menu.
6. Select [Reader Info.] in the lower left menu.



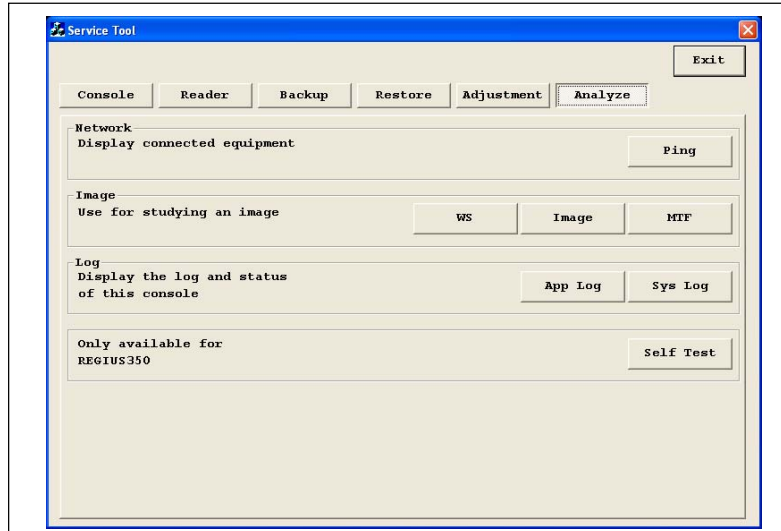
-
7. Check that "SP (Shading) " and "F (Fading) Calibration" are set to normal.
 8. Click [Save & Exit] --> [Yes].
 9. Click [Exit] to return to the "REGIUS Service Screen".
A confirmation dialogue will be shown.
 10. Click [CS-1/CS-3 Console].
CS-1/CS-3 application starts, and the "Exam Search" screen will be shown.
 11. Set the following

Patient ID :	Facility-beta*
	Ex) Konica-beta ("*" is 1 byte text. It will increment by 1 when repeating the exposure of solid image)
Name :	Exposure condition (Bulb voltage, X-ray dose, exposure distance)
	Ex) 80kv15mas2m
Exam. Tag :	TEST 1 of Service group
Exp. Sen. :	Normal
Resolution	Test at both High Res. (87.5 μ m) and Std. Res.(175 μ m)
 12. Turn ON the irradiation SW of the X-ray generator device.
Exposed image will be displayed on the LCD of the CS-3.
 13. Start the Service Tool from the "REGIUS Service (Console)" screen.
"Service Tool (Console)" screen will be displayed.

14.

 Click [Analyze].

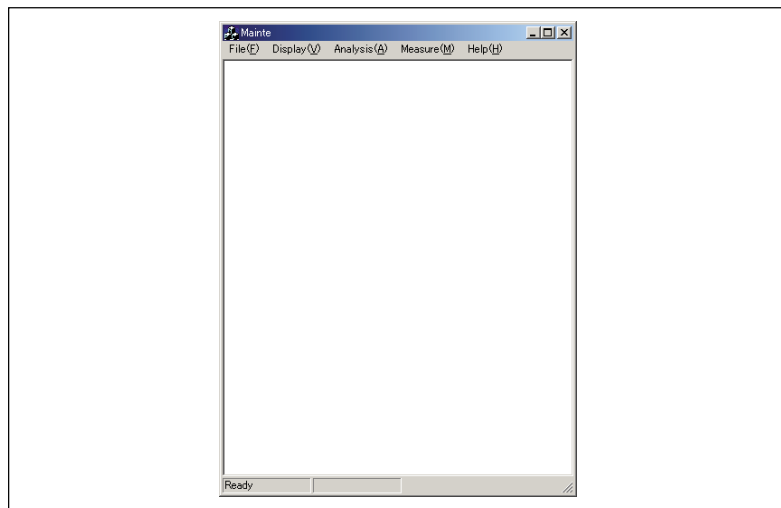
“Analyze” screen will be shown.



15.

 Click [Image].

Exam. software will start.



16.

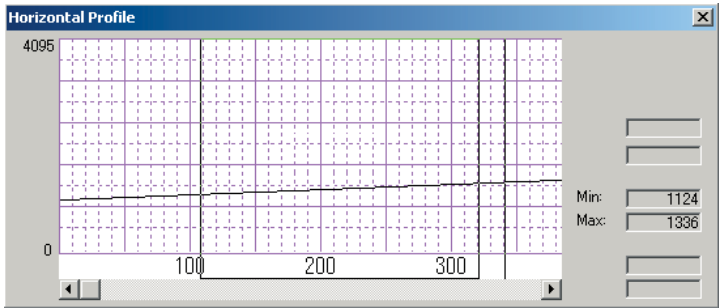
 Select [Open (O)] in [File (E)].

“Open” dialogue will be shown.

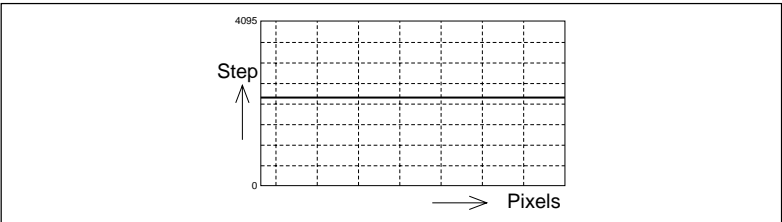
17.

 Select from the image files exposed in the step.12, a file which used the grid focus length (150 or 200cm) for the exposure.

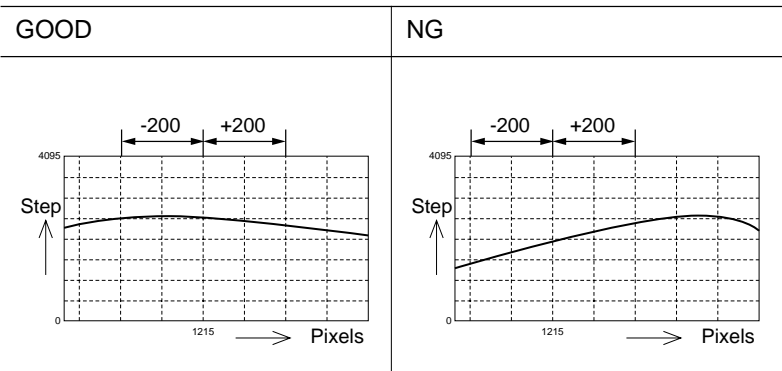
18. Select [Profile (Horizontal) (S)] from [Analysis (A)] menu.
“Horizontal Profile” screen will be shown.



19. Select the overall area of the displayed image with a cursor, and check the horizontal profile.
Criterion : To be almost flat.



20. In the same manner, check the horizontal profile of the exposed image at max. exposure distance and min. exposure distance (175μm). (step. 16~ 19)
Criterion : The maximum step to be within 1,215±200 pixels.



- The images, both exposed at the max. exposure distance and min. exposure distance tend to show lower step value toward the right and left edges.

21. If the result is out of the allowance, send a request to the X-ray generator manufacturer to adjust the X-ray bulb.
- The amount of displacement shall be calculated according to the following equation.
$$X = (a - 1215) \text{ pixels} \times 0.175 \text{ mm}$$

a : Pixels at the max. Step value (max. exposure distance)
 - Check that there is no malfunction on the reader device before sending a request to the X-ray generator manufacturer.

22. Check on the LCD panel that the overall image looks grey and has no density unevenness, etc.
 - Clicking on the image display area will enlarge the image. Clicking again will restore the original size of the image.
 - In the later, when the reader is connected to the network, check the printed image by outputting from the imager. In this case, output 2 sizes, i.e. a life size on 17" x 17", and the maximum size.
23. After confirming that there is no abnormality on the solid image, proceed with the next clause ["9.4.2 Evaluating the MTF Chart"](#).

9.4.2 Evaluating the MTF Chart

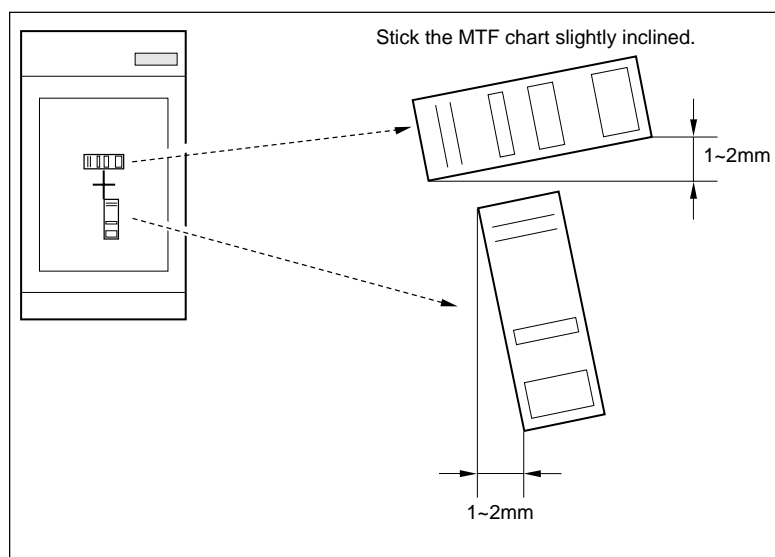
Measurement of the MTF chart should be carried out on a MTF chart of main scan direction and the one of subscan direction.

<Important>MTF chart measurement should be carried out after the unevenness calibration and sensitivity calibration.

1. Stick MTF charts at the center of the front panel of the reader unit.

<Important>Because the paint on the front panel is easily fell off, care should be taken.

- Stick the charts at the center of the front panel.
- Place the front panel so that the center click becomes effective for front-rear, right-left positioning.
- Stick the charts with its "null" line pair side toward the start of scanning.
- Stick the charts slightly inclined to the axis of the front panel.



2. Set the following on the CS-1/CS-3 application software.

Patient ID : mtf*
 Ex) mtf1 (“*” is 1 byte text. It will increment by 1 when repeating the exposure of mtf)

Name : Exposure condition (Bulb voltage, X-ray dose, exposure distance)
 Ex) 80kv15mAs2m

Exam. Tag : konica test1

3. Set the exposure condition of the X-ray generator device.

•Exposure Condition

Voltage : 80kV

mAs value : X-ray dose, focus length same as those of unevenness calibration

Grid : use an actual condition for the examination.

Photo Timer: none.

Filter : none

• mAs value is a target value when the distance is 2m, with grid (transmittance 50%).

•Reading Condition

Unevenness Correction : ON

Sensitivity : Standard (QR = 250)

Pixel Size : 175 μ m

4. Turn ON the irradiation SW of the X-ray generator device.

5. Take notes of the time when exposed, etc.

- The note will be necessary to specify the exposure condition later.
- Should “Next Exposure” is pressed without taking notes, locate the subjective file using [Image File] of utilities (specify mtf* for ID : ID input at the time of exposure), and take notes of the time when exposed.

6. Start the Examination Tool, and open the exposed image file. (refer to the step.14 ~ 18, "9.4 Checking Image and Examining MTF Chart")

7. Select [Display Size (V)] in the [Display (V)] menu.

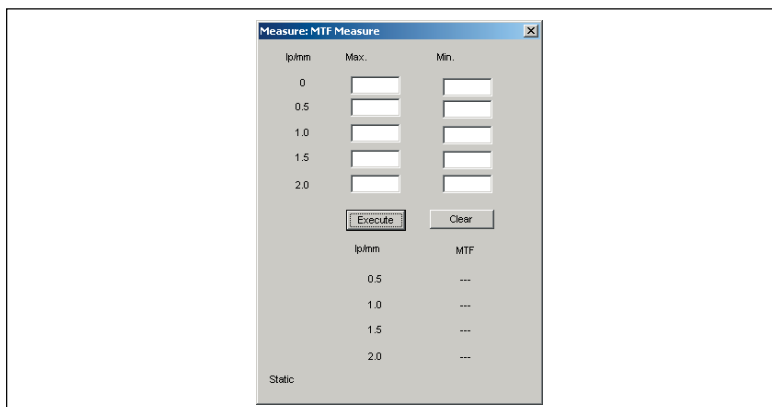
8. Select [No Interpolation (N)] in the submenu.

9. Scroll the image so that the MTF chart on the image is positioned in the center of the screen.

0 lp/mm Data Measurement

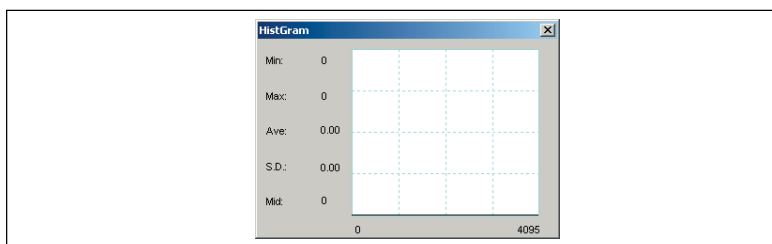
1. Select [MTF Measurement ... (M)] in the [Measure (M)] menu.

“Measure: MTF Measure” screen will be shown.



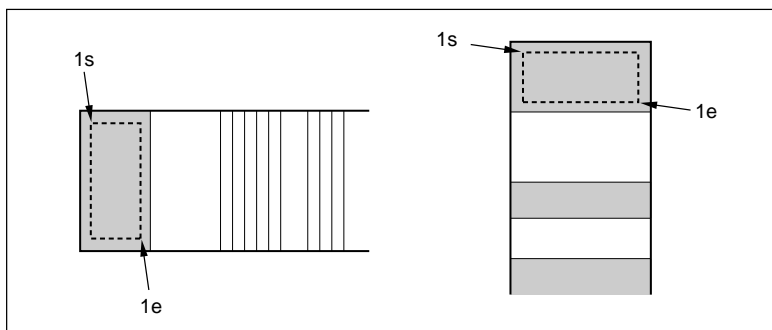
2. Select [Histogram (H)] in the [Analysis (A)] menu.

“Histogram” screen will be shown.

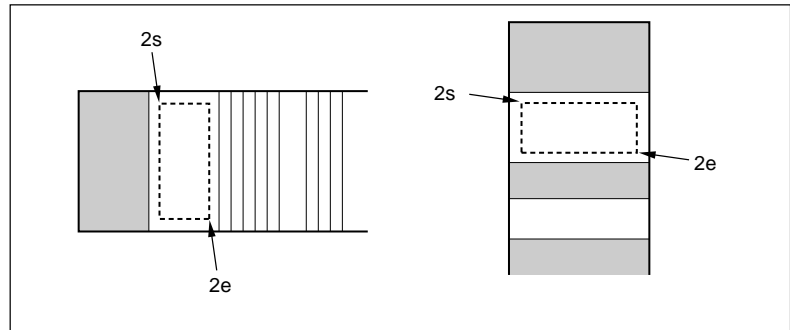


3. Drag the cursor from the position “1s” to “1e” on the displayed image.

- The average signal value within this area will be set as the maximum signal value for 0 lp/mm on the MTF measurement screen.
- If failed to drag the correct area, click on the input box for the max signal value for 0 lp/mm on the MTF measurement screen, and after confirming that the cursor (▲) moved to that position, try again to specify the area.
- All input data will be cleared and resumes the initial status when [Clear] on the “Measure: MTF Measure” screen is clicked.



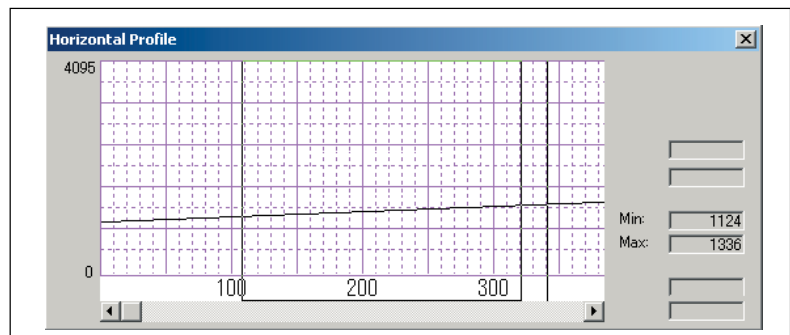
4. In the same manner as in the step.3, drag the cursor from “2s” to “2e”.
 - The average signal value within this area will be set as the minimum signal value for 0 lp/mm on the MTF measurement screen.



5. After setting both max./min. signal value for 0 lp/mm, close the “Histogram” screen.

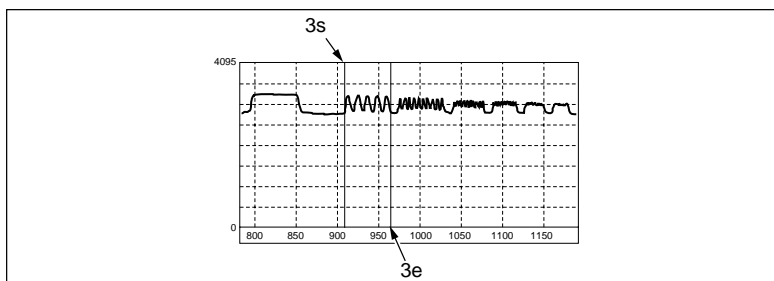
0.5 ~ 2.0 lp/mm Data Measurement

1. Select [Profile(Horizontal) (S)] in the [Analysis (A)] menu.
“Horizontal Profile” screen will be shown.



2. Click on the center of the MTF chart for main scan direction on the displayed screen to obtain the profile for 1 line.

3. Drag the cursor from the position “3s” to “3e” on the displayed image.

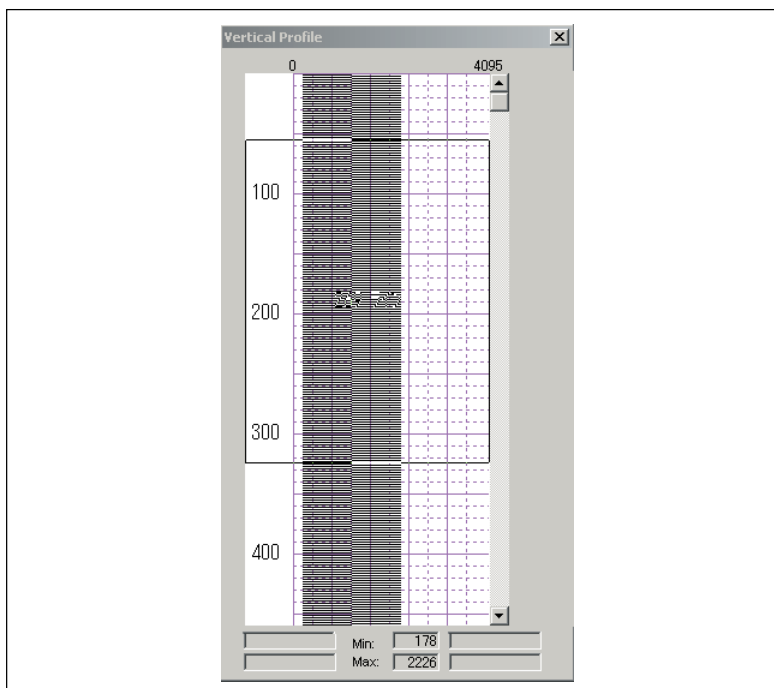


- The average signal value within this area will be set as the minimum signal value for 0.5 lp/mm on the MTF measurement screen.
- If failed to drag the correct area, click on the input box for the min. signal value for 0.5 lp/mm on the MTF measurement screen, and after confirming that the cursor (▲) moved to that position, try again to specify the area.

4. In the same manner as for the step.3, measure the max./min. signal value for 1.0, 1.5, 2.0 lp/mm.

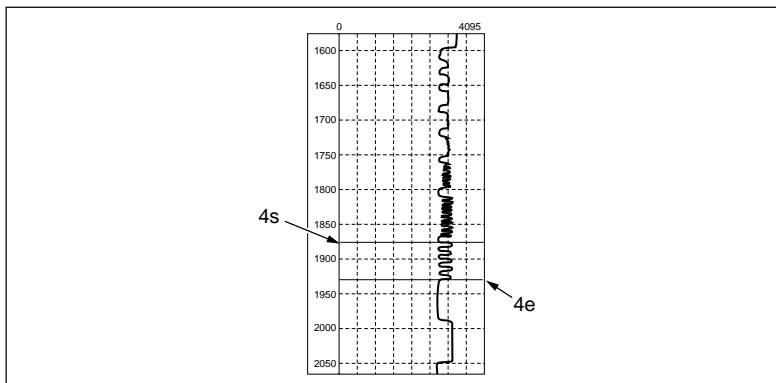
5. Select [Profile(vertical) (V)] in the [Analysis (A)] menu.

“Vertical Profile” screen will be shown.



6. Click on the center of the MTF chart for subscan direction on the displayed screen to obtain the profile for 1 line.

7. Drag the cursor from the position "4s" to "4e" on the displayed vertical profile.



8. In the same manner as for the step.7, measure the max./min. signal value for 1.0, 1.5, 2.0 lp/mm.
9. After setting the max./min. signal value for 0.5 ~ 2.0 lp/mm on the main and sub-scan direction, close the [Profile(Horizontal)] and [Profile (vertical)] screens.

MTF Calculation and Exiting the Screen

1. Click [Execute] on the "Measure: MTF Measure" screen.
 - Calculated result of the MTF will be shown.
 - The MTF reference values are as follows.

lp/mm	Main Scan	Sub Scan
0.5	82% or more	82% or more
1.0	60% or more	60% or more
1.5	39% or more	39% or more
2.0	22% or more	22% or more

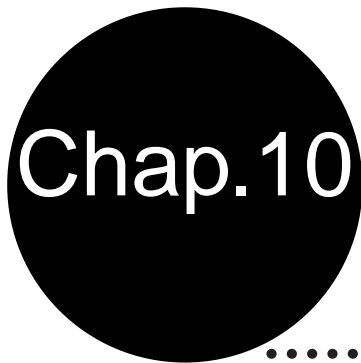
2. Close the "Measure: MFT Measure" screen.

3. Exit the Exam. software.

Switches to the "Analyze" screen.

If the calculated result is out of the allowance'

- Until the measurements comes closer to the reference values, repeat the procedures in the step.4 (irradiation ON), "9.4.2 Evaluating the MTF Chart" through to the above step.1 (calculation).
- If no improvement is noticed after the trials, replace the optical unit. (refer to the REGIUS MODEL 170 Service Manual of each reader for the replacement procedures)



Maintenance & Adjustment of System

In this chapter, procedures for maintenance and adjustment using the CS-3 is detailed.

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10.1 Regular Service Items

Items and intervals for regular service of the CS-3 are listed below.

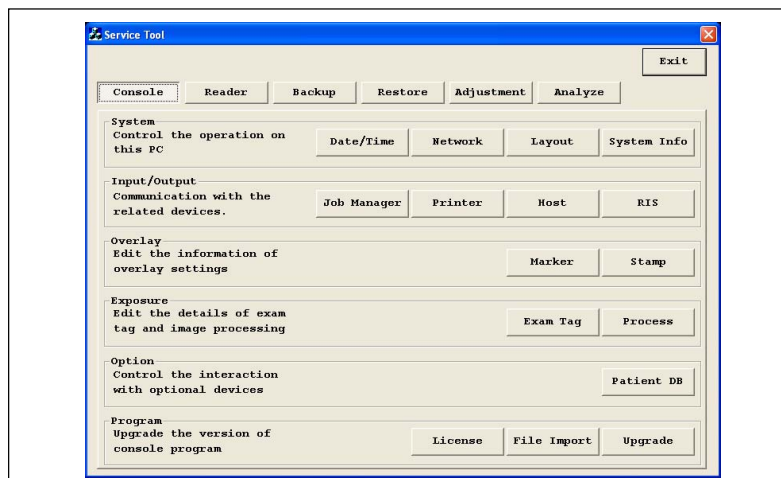
Maintenance Task	Intervals	Reference Page
Backup of system data	every 6 months	
Replacement of internal FAN	every 40000 operation hours	
Replacement of HDD	every 20000 operation hours	
Dferagmentation of HDD	every year	

10.2 Back Up & Restore of System Information

Regularly backing up the CS-3 system data in the super disk will help restore the original system in case that the system data or CS-3 itself is collapsed or damaged in accident or by mistake. Also it will help investigate the cause of an error when it happens.

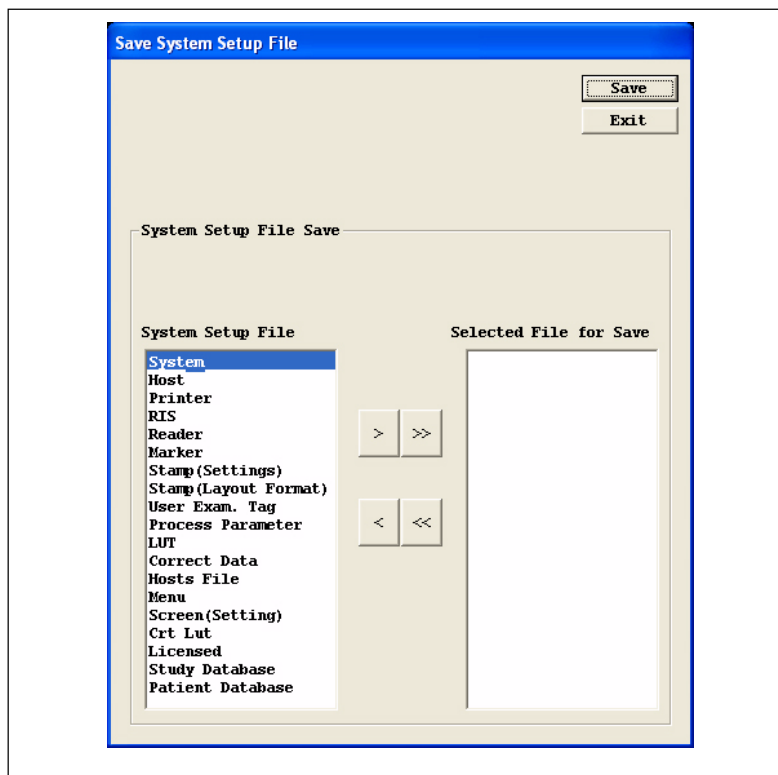
10.2.1 Back Up of System Information

1. Start up "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.
2. Click [Backup] of the "Service Tool" screen (Console).
"Service Tool" screen (Backup) will be shown.



3. Click [System] of “System”.

“System Setup File Save” screen will be shown.

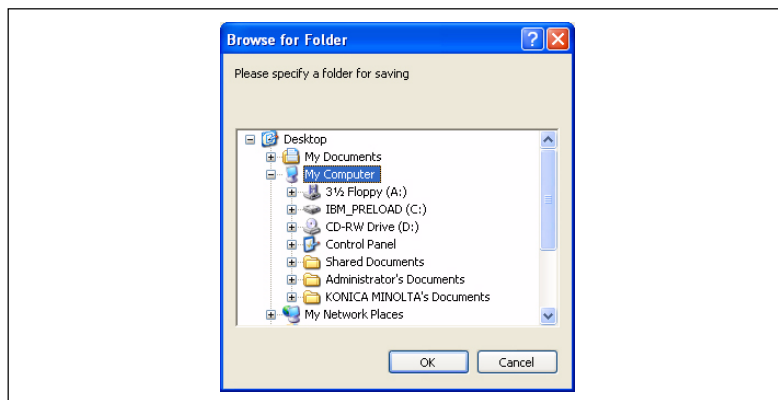


4. Click [>>].

All items in the left column (System Setup File) will be listed in the right column (Selected File for Save).

5. Click [Save].

“Browse for Folder” screen will be shown.



6. Select an appropriate folder on the desktop (Administrator's document folder, etc.) and click [OK].

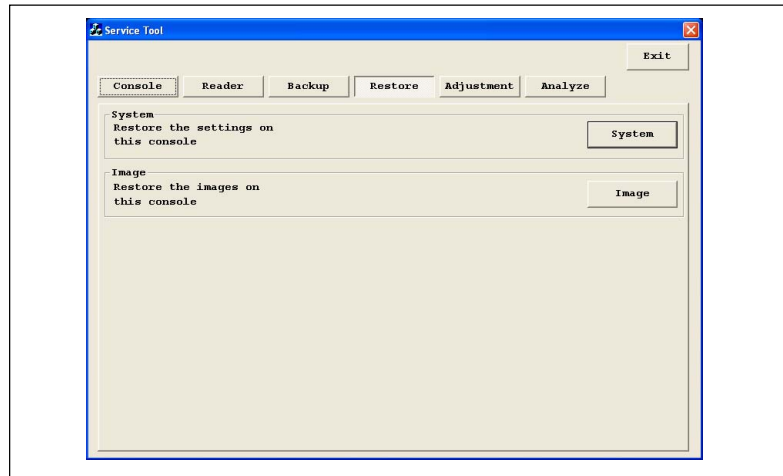
A dialogue confirming whether to save or not will be shown.

7. Click [Yes].
“Saving.....” dialogue will be shown.
Confirmation dialogue will be shown when saving completes.
8. Click [Yes] of the dialogue.
9. Click [Exit] to close “System Setup File Save” screen.
10. Click [Back] to switch to the “REGIUS Service” screen.
11. Click [Back to Windows Desktop] to display the Windows desktop.
12. Copy the files with extension “.lzh” and “.Deg” that are selected in the step.6 onto CD-R.

10.2.2 Restore of System Information

The system data backed up in the CD-R can be restored by the following procedure.

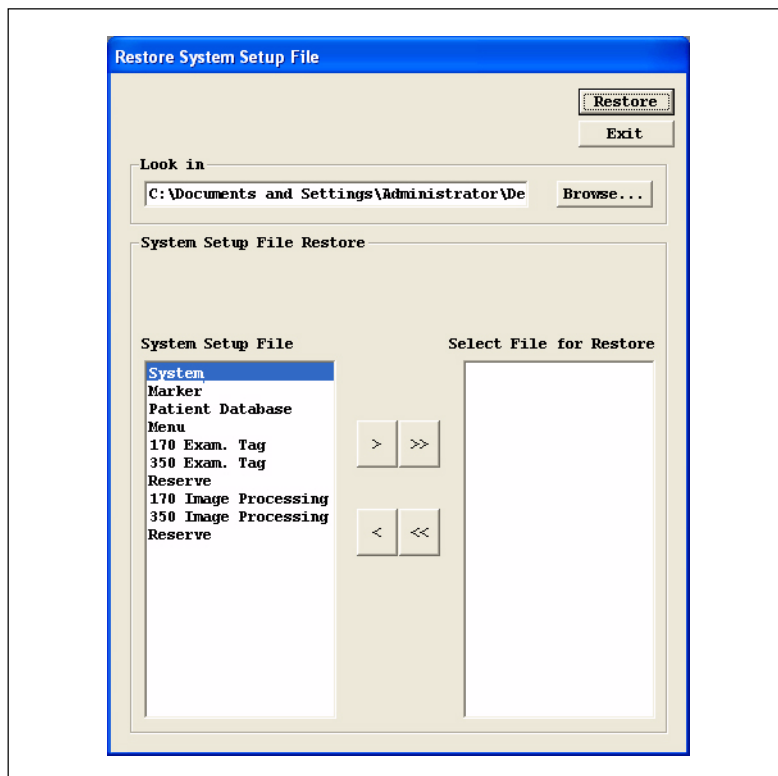
1. Start up “Service Tool” from “REGIUS Service” screen.
Refer to "1.6 Service Tool Screens of CS-3" to display “REGIUS Service” screen.
2. Click [Restore] of the “Service Tool” screen (Console).
“Service Tool” screen (restore) will be shown.



3. Install the CD-R in which the system data has been backed up into the CD-RW drive.

4. Click [System] of “System”.

“System Setup File Restore ” screen will be shown. A list of files stored in the superdisk is displayed in the “System Setup File” column.



5. Click [Browse...].

Folder browse dialogue will be shown.

6. Select “CD Drive (D:)”, and click [OK].

A list of system setup data that is backed up in the CD-R will be shown in the “System Setup Files”.

7. Select files to be restored from the “System Setup File” column, and click [>] or [>>].

Selected files in the left column (System Setup File) will be listed in the right column (Selected File for Save).

8. Click [Restore].

Confirmation dialogue will be shown.

9. Click [Yes].

“Restoring.....” dialogue will be shown.

After completing the restoration, confirmation dialogue will be shown.

10. Click [Yes].

Screen switches to “Service Tool (Restore)” screen.

11. Click [Finish].
Switches to the “Service Tool (Reader)” screen.
12. Remove the CD-R from the super disk drive.
13. Exit “Service Tool” screen, and restart the system software from
“REGIUS Service” screen.

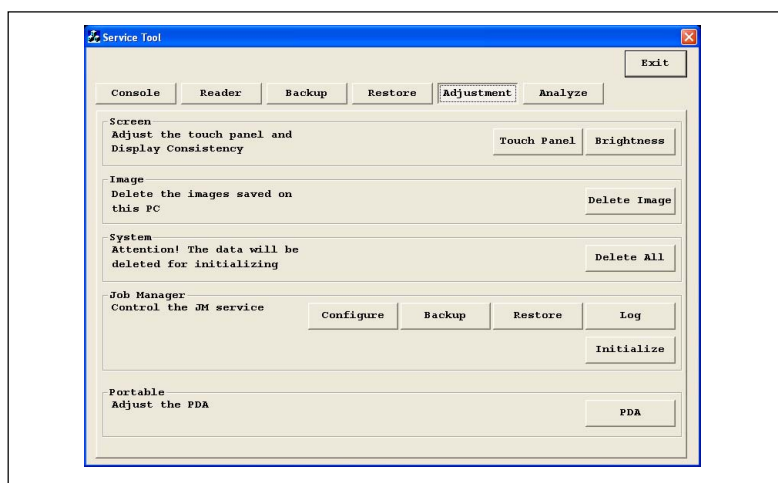
10.3 Back Up & Restore of JM Information

JM data base can not be saved or restored in the same procedure as that used for saving or restoring the system information. Follow the procedure below to carry out back up and restore.

10.3.1 Back Up of System Information

Following procedure should be carried out on the CS-3 that uses the external JM or internal JM.

1. Start up "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.
2. Click [Adjustment] of the "Service Tool" screen (Console).
"Service Tool" screen (Adjustment) will be shown.
3. Install a floppy disk for back up into the floppy disk drive.
4. Click [Backup] of "Job Manager".



Back up will start.

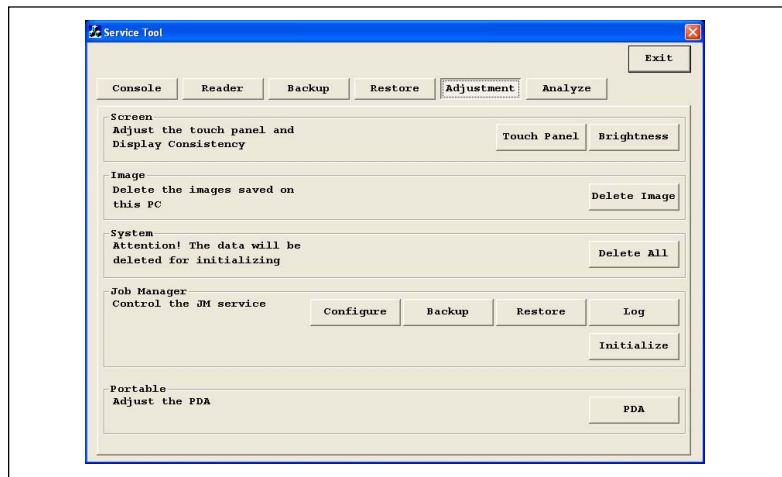
- The backed up data will be saved in the floppy disk under the folder name "backup_jm".

5. Remove the floppy disk from the floppy disk drive.

10.3.2 Restore of JM Information

Following procedure should be carried out on the CS-3 that uses the external JM or internal JM.

1. Start up "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.
2. Click [Adjustment] of the "Service Tool" screen (Console).
"Service Tool" screen (Adjustment) will be shown.
3. Install the floppy disk in which the JM information has been backed up into the floppy disk drive.
4. Click [Restore] of "Job Manager".



Command prompt will be shown on the window, and restore will start.
After completing restore, command prompt will close.
This completes restoration of the JM information.

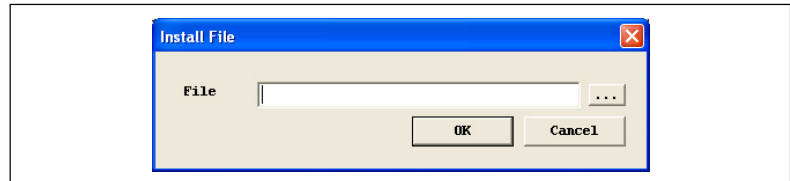
5. Remove the floppy disk from the floppy disk drive.
6. Exit "Service Tool" screen, and restart the system software from "REGIUS Service" screen.

10.4 Upgrading the Version of CS-3

Upgrade of the CS-1/CS-3 application, Service Tool, User Tool is always carried out simultaneously.

1. Start the Service Tool from the "REGIUS Service Screen".
Refer to "1.6 Service Tool Screens of CS-3" for the procedures to open the "REGIUS Service Screen".

2. Click [File Import] of [Program].
"Install File" screen will be shown.



3. Insert the CD-R that contains a new version into the CD-RW drive of the CS-3.

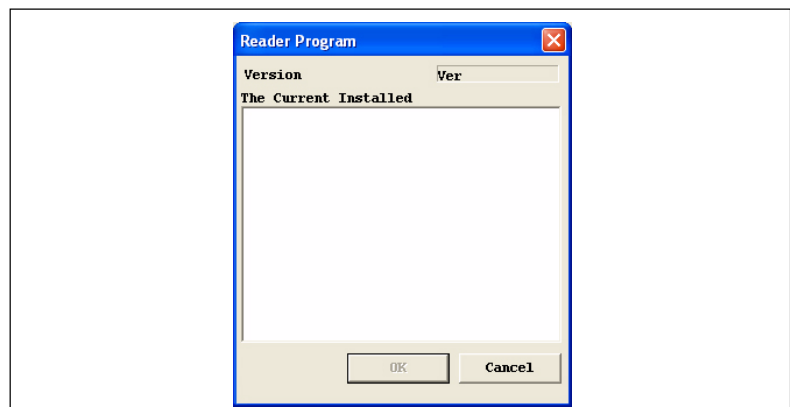
4. Click [. . .].
"Open" dialogue will be shown.

5. Select the new program version of CS-3, and click [Open (O)].
Switches to the "Install File" screen, and the file name selected here for the "File Name" will be listed.

The file name of CS-3 install software is ;
"PcProgx.xxRxx.lzh" (x varies depending on the version)

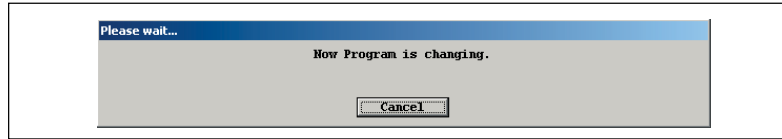
6. Click [OK] of the "Install File" screen.
Dialogue indicating the installation process will be shown.
Upon completion of the installation, the dialogue closes, and switches to the "Service Tool" screen(Console).

7. Click [Upgrade] of [Console].
"Controller Program" screen will be shown.



8. Select the latest version, and click [OK].

Dialogue indicating the updating process of the program will be shown.



<Caution> Never touch the “Cancel” on this dialogue.



Upon completion of updating, switches to the “Service Tool” screen(Console).

9. Click [Exit], and then click [Yes] of the confirmation dialogue.

Switches to the “REGIUS Service Screen”.

10. Click [Restart].

The CS-1/CS-3 application software restarts, and the version number will be shown on the screen. Check that the displayed version number is identical to that of the updated program.

10.5 Upgrading the Version of REGIUS 190/170

Update the firmware (data stored in CF and control program of the mechanical control board) of the cassette reader.

To update the software version of the REGIUS 190/170, use the "Service Tool" of the CS-3 that is connected to the REGIUS 190/170.

<Important> Failure to update the software version of the REGIUS 190/170 may result in a situation where the cassette reader will not be started up any more. Therefore, strictly follow the procedure below. Once the procedure for upgrade has started, never implement other operation. Also to be noted is that during the upgrade procedure, never turn off the power of the cassette reader. In case that the REGIUS 190/170 is unable to be started up, replace the MCB, SCB of the cassette reader, or replace the CF card followed by updating the MCB with the serial cable connected.

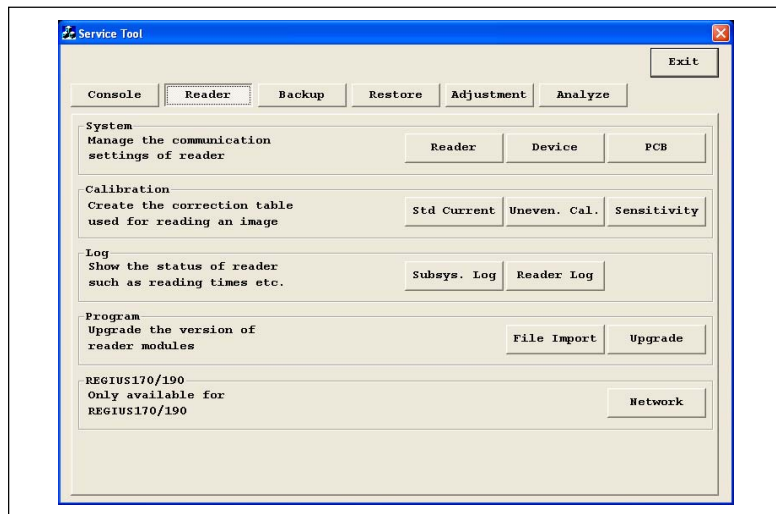
<Caution> When updating the software version of the REGIUS 190/170 in "n to m connection", never operate (even the routine operation) the cassette reader(s) other than the targeted one as well as the CS-3 for the updating operation.



1. Recycle the power(OFF/ON) all readers, CS-3(s), and external JM(if present) to restart.
Shut down all CS-3s--> Press [operation] buttons to shutdown all REGIUS 190/170s --> shut down External JM in this order, turn on the power of External JM-->CS-3-->Reader in the reverse order.
2. Start the "Service Tool" from the "REGIUS Service Screen".
Refer to "1.6 Service Tool Screens of CS-3" for the procedures to open the "REGIUS Service Screen".

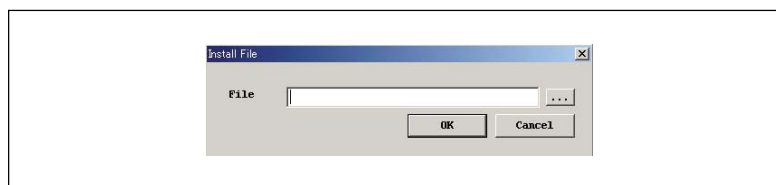
3. Click [Reader].

“Service Tool” screen(Reader) will be shown.



4. Click [File Import] of [Program].

“Install File” screen will be shown.

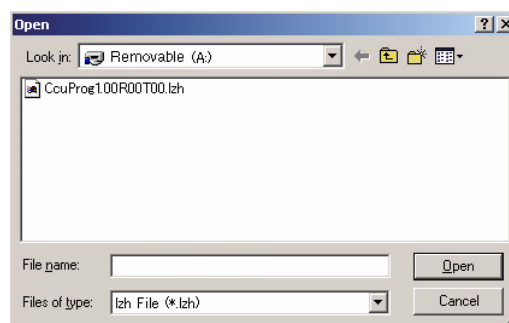


5. Insert the CD-R that contains a new software version for the cassette reader into the CD-RW drive of the CS-3.

6. Click [. . .].

“Open” dialogue will be shown.

7. Select the new program version of REGIUS 190/170 Install File, and click [Open (O)].



Switches to the “Install File” screen, and the file name selected here for the “File Name” will be listed.

The file name of REGIUS 190/170 Install software is ;

“CcuProgxx.xxRxx.Txx.lzh” (x varies depending on the version)

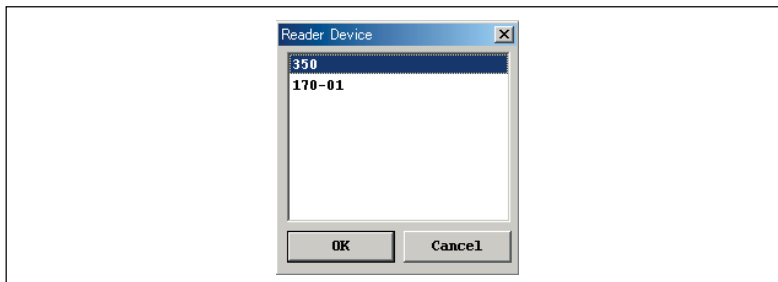
8. Click [OK] of the [Install File].

Dialogue indicating the installation process will be shown.

Upon completion of the installation, the dialogue closes, and switches to the “Service Tool” screen(Reader).

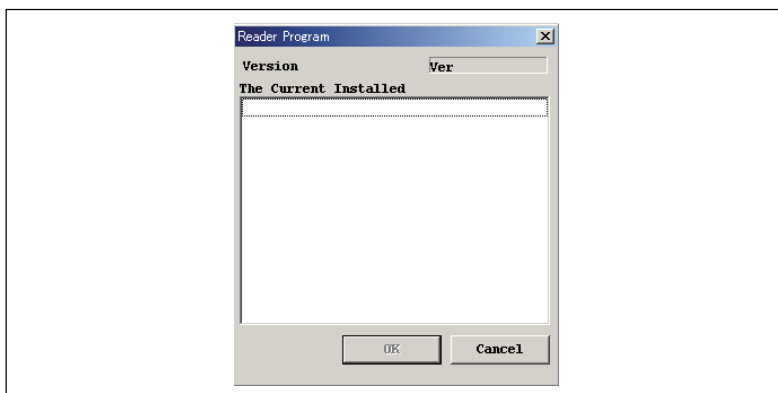
9. Click [Upgrade] of [Program].

“Reader Device” screen will be shown.



10. Select the REGIUS 190/170 that you want to upgrade, and click [OK].

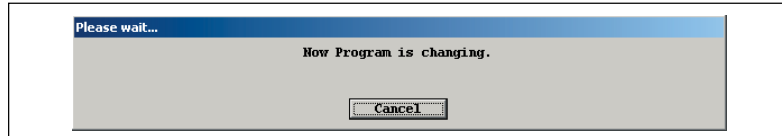
“Cont. Prog. Change Select” screen will be shown.



11.

Select the latest version, and click [OK].

Dialogue indicating the updating process of the program will be shown.

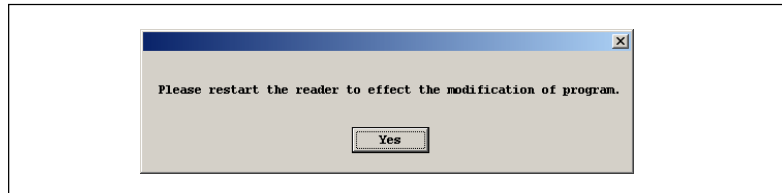


- Program change will be implemented in order of update of CF card --> MCB firmware rewrite. It takes 3 to 4 minutes to complete the program change.

<Important> Never touch the “Cancel” on this dialogue. Neither attempt to implement any operation on the CS-3.

<Important> Never turn off the power of the cassette REGIUS 190/170.

Upon completion of updating, the dialogue indicating the progress closes, and a dialogue to indicate the completion of updating will be shown.



12.

Click [Yes].

Switches to the “Service Tool (Reader)” screen.

13.

Restart the cassette reader which has been updated.

When “READY” appears on the LCD of the REGIUS 190/170 after completing the restart, upgrading is successful.

The program version currently running on the cassette reader can be verified on the “Version” of the “Reader Program” screen. (refer to step 9 through 10 to open the “Reader Program” screen)

14.

Start the “PostgreSQL access” of the JM, and check on the “r_version” screen that the version and updated data of the REGIUS 190/170 have been updated.

- Refer to “PostgreSQL access” Screen , p.147 for the procedure to operate “r_version” screen of PostgreSQL access.
- Refer to “A.6” to check the settings of the external JM.

When several REGIUS 190/170s are connected to the system, upgrade each REGIUS 190/170 in a same manner.

10.6 Updating the Dedicated Reader (REGIUS 350)

Update the firmware of the dedicated reader.

To update the software version of the cassette reader, use the “Service Tool” of the CS-3 that is connected to the REGIUS.

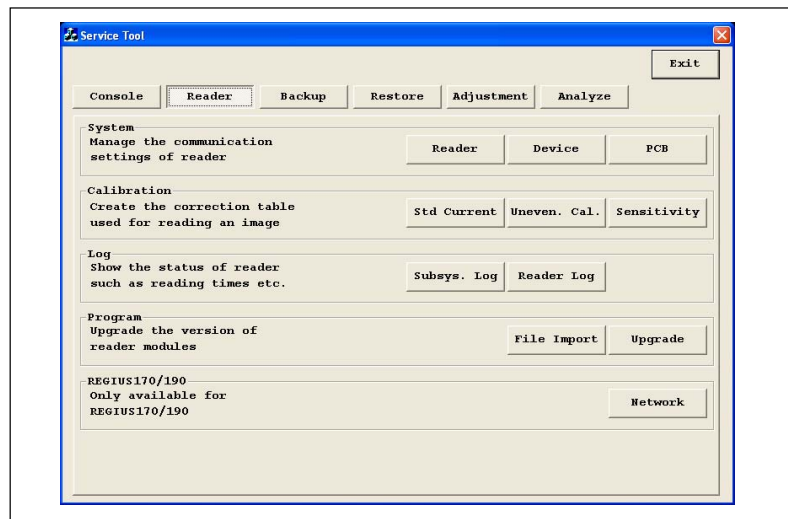
<Important> Failure to update the software version of the dedicated reader may result in a situation where the cassette reader will not be started up any more. Therefore, strictly follow the procedure below. Once the procedure for upgrade has started, never implement other operation on the CS-3 that has started the updating process. Also to be noted is that during the upgrade procedure, never turn off the power of the cassette reader.

1. Start the “Service Tool” from the “REGIUS Service Screen”.

Refer to "1.6 Service Tool Screens of CS-3" for the procedures to open the “REGIUS Service Screen”.

2. Click [Reader].

“Service Tool” screen(Reader) will be shown.



3. Click [File Import] of [Program].

“Install File” screen will be shown.

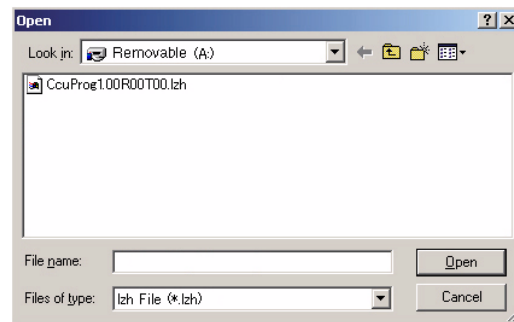


4. Insert the CD-R that contains a new software version for the dedicated reader into the CD-ROM drive of the CS-3.

5. Click [. . .].

“Open” dialogue will be shown.

6. Select the new program version of Dedicated Reader Install File, and click [Open (O)].



Switches to the “Install File” screen, and the file name selected here for the “File Name” will be listed.

The file name of Dedicated Reader Install software is ;
“IcuProgxx.xxRxx.Txx.lzh” (x varies depending on the version)

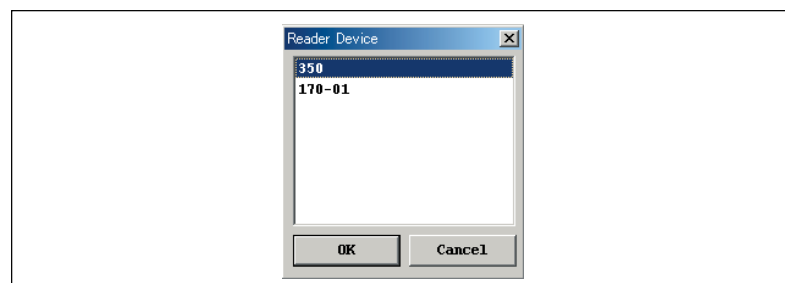
7. Click [OK] of the [Install File].

Dialogue indicating the installation process will be shown.

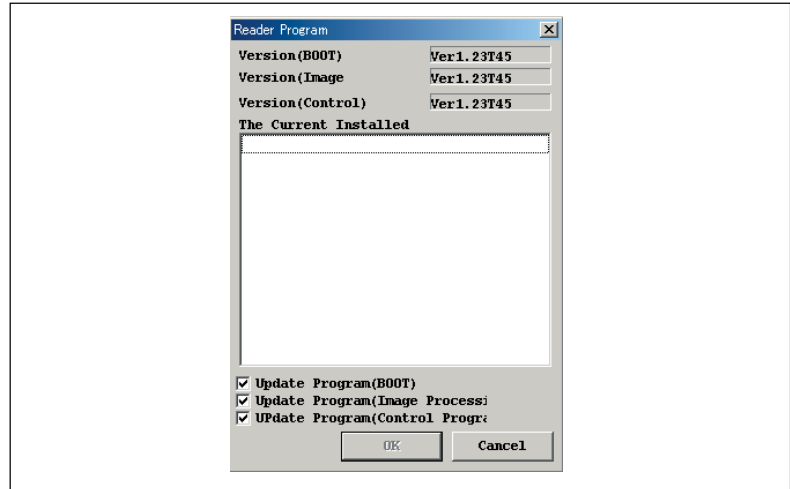
Upon completion of the installation, the dialogue closes, and switches to the “Service Tool” screen(Reader).

8. Click [Upgrade] of [Program].

“Reader Device Select” screen will be shown.

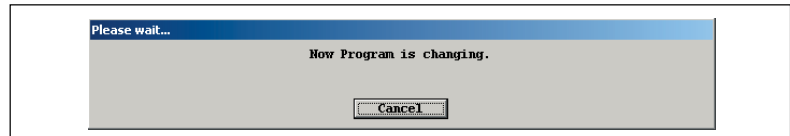


9. Select the dedicated reader device that you want to upgrade, and click [OK].
“Reader Program” screen will be shown.



10. Select the latest version, and click [OK].

Dialogue indicating the updating process of the program will be shown.



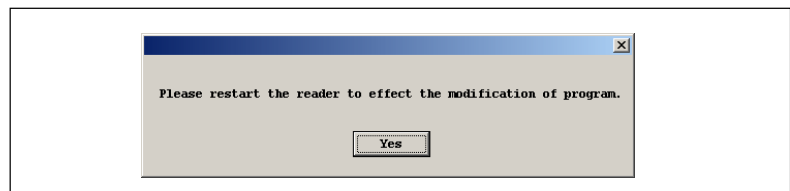
<Caution> Never touch the “Cancel” on this dialogue. Neither attempt to implement any operation on the CS-3.



<Caution> Never turn off the power of the dedicated reader(s).



Upon completion of updating, the dialogue indicating the progress closes, and a dialogue to indicate the completion of updating will be shown.



11. Click [Yes].

Switches to the “Service Tool” screen(Reader).

12. Restart the dedicated reader which has been updated.

The program version currently running on the dedicated reader can be verified on the “Version” of the “Reader Program” screen. (refer to step 8 through 9 to open the “Reader Program” screen)

10.7 Adjusting the Luminance of CS-3 Operation Unit

Adjust the brightness of the touch panel of CS-3 Operation Unit so that the image on the screen will look closer to that of the film on the viewer.
Carry out the procedures listed below when the adjustment of the luminance of CS-3 operator unit becomes necessary as listed below.

- At the time when CS-3(s) is installed.
- When the luminance changes apparently due to the degradation of the CS-3 operation unit.
- When the standard viewer is replaced or changed.
- When the CS-3 operation unit is replaced.
- When the target printer is changed.

For the luminance adjustment of the CS-3 operation unit, Luminance meter (Konica Minolta LS-100) and Connector cable for luminance meter (LS-A12) become necessary. Prepare these in advance.

<Important> Make sure that there is no reflection of room light or streaming light on the screen when measuring the brightness of the viewer or the touch panel of CS-3 Operation Unit.

10.7.1 Measuring the Luminance of the Viewer

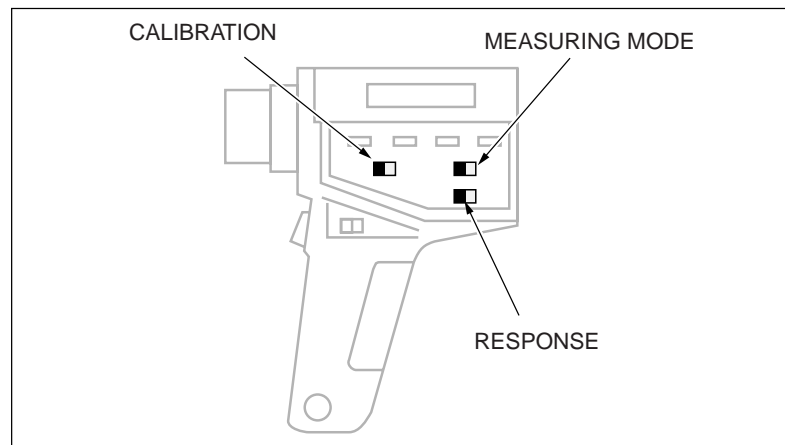
Measure the brightness of the viewer of the facility.

1. Set the switches of the luminance meter as shown in the figure.

CALIBRATION : PRESET

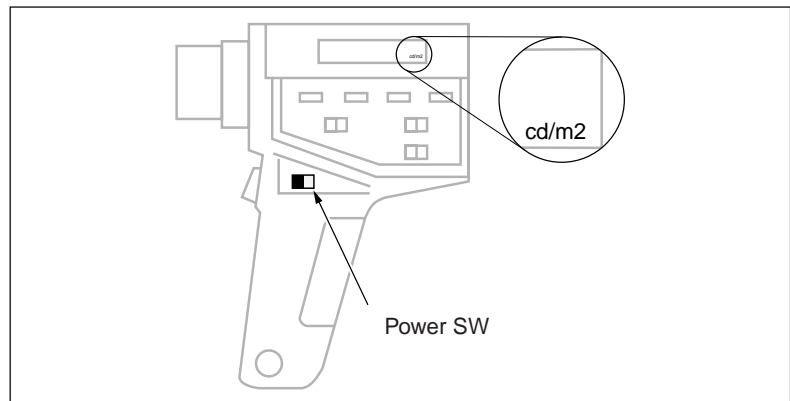
MEASURING MODE : ABS

RESPONSE : FAST



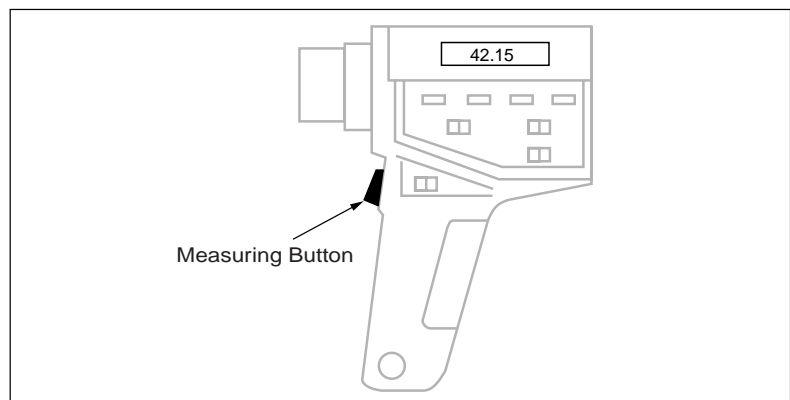
2. Turn ON the power of the luminance meter, and check that the display shows "cd/m²".

Check that on the display, "cd/m²" does not carry "C" on its ending.



3. Turn the power SW of viewer.
 - Use the viewer that is actually being used at the facility.
 - Remove the film if hanged on the viewer.
4. Stay 1m away from the viewer, and set the focus of the luminance meter on the viewer's surface.
 - Focusing is not completed if the distance is shorter than 1m.
 - Position the luminance meter at the actual eye level of the user.

5. Press the measuring button of the luminance meter.
 - Release the measuring button so that the measured value will be held on the indicator.
 - Note the measured value on the note pad, etc.



6. Turn the power of viewer OFF, and hook the developed film.
 - The developed film to be used here shall have the density of approximately D=3.0.
 - Simulate the room brightness and the body part of the image closest possible to the actual condition of the user.

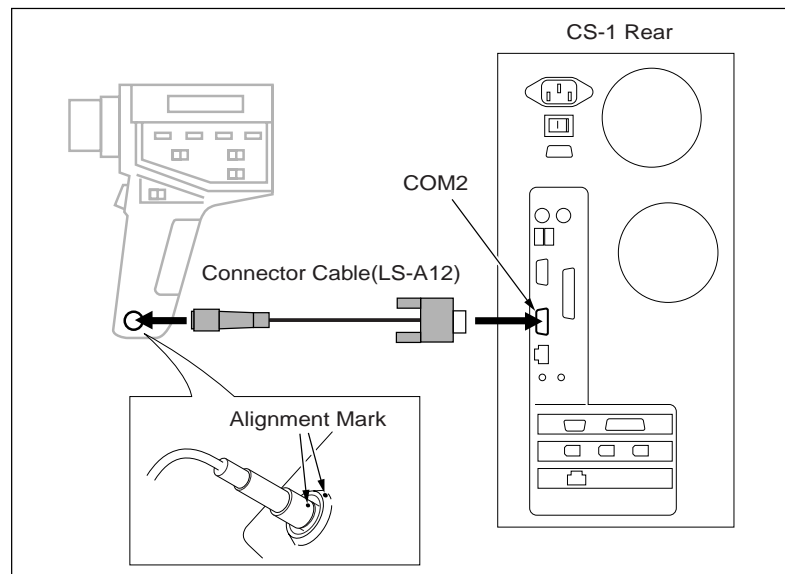
7. Setting the luminance meter's focus on the film, and press the measuring button of the luminance meter.
 - This will measure the reflection luminance of the film surface. Carry out the measurement when the measuring area(circle with d=20mm) that can be seen when viewing thorough the luminance meter entirely overlaps with the film surface of D=3.0.
 - Note the measured value on the note pad, etc.
8. Turn the power of the luminance meter OFF.

10.7.2 Measuring the Luminance Characteristics

Measure the brightness of the CS-3 Operation Unit's display panel.

- To create LUT for the LCD using a brightness characteristics obtained in the previous days, proceed with ""10.7.3 Creating the Monitor LUT".

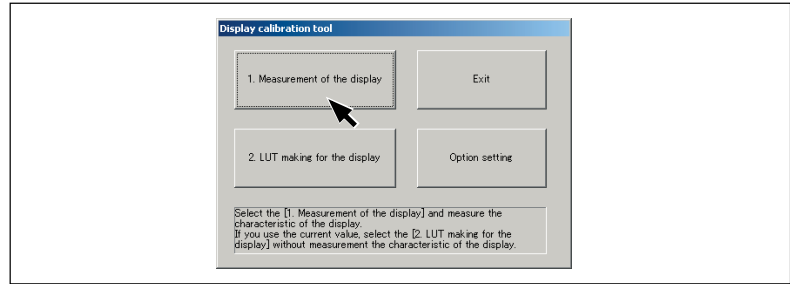
1. When the CS is in operation, click [Shutdown] of the system menu (or [Shutdown] of the REGIUS Service Screen) to terminate (turn OFF) the CS-3.
2. Connect between the COM2 port of CS-3 and the luminance meter with a connector cable (LS-A12).



3. Turn ON the power SW of CS-3.
4. Keep pressing the brightness Adjustment button located on the front of CS-3 Operation Unit until the value "80" shows on the screen.
5. Start up the Service Tool, and click [Adjustment].

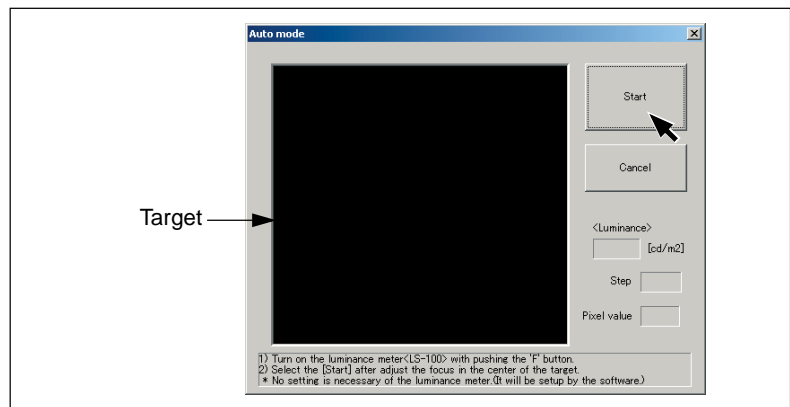
6. Click [Brightness].

Monitor calibration software starts up.



7. Click [1. Measurement of display].

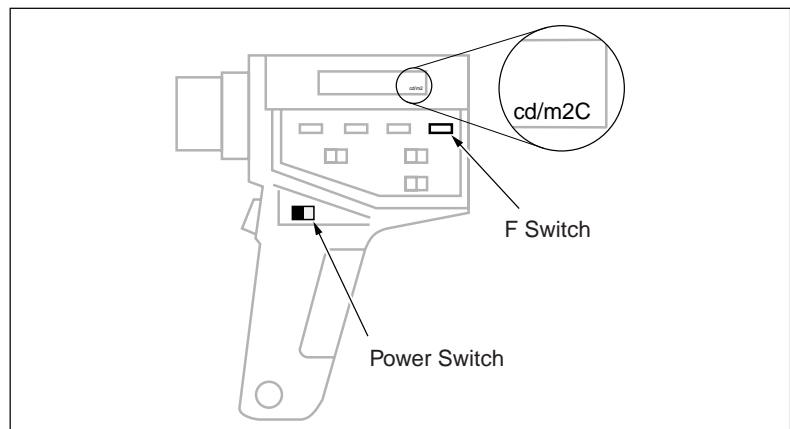
“Auto mode” screen will be shown.



8. Drag the “Auto mode” screen so that the target (black rectangular) of “Auto mode” screen is positioned at the center of the panel of CS-3 Operation Unit.

- Make sure that there is no reflection image on the screen, especially when there is a white paper, etc. nearby the screen.

9. While pressing “F” button of the luminance meter, turn ON the power SW of the luminance meter.



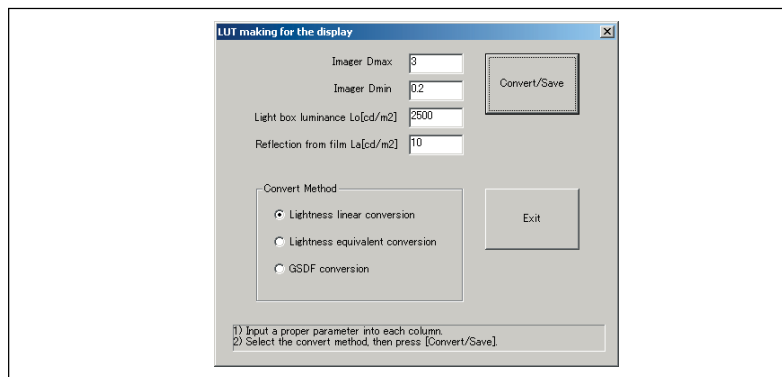
10. Check that the display on the luminance meter shows “cd/m²C”.
 - Check that “cd/m²” has “C” on its end.
11. Stay 1m away from the CS-3 Operation Unit. While viewing through the luminance meter, set the focus on the target.
 - Focusing is not completed if the distance is shorter than 1m.
 - If you find it difficult to focus to the center, adjust focus on the edge of the target.

<Important> Because the luminance on the LCD may vary depending on the angle, set the angle of the panel of CS-3 operation unit to that actually the user views. Also set the Position of the luminance meter at the level at which the user actually look at the display panel of CS-3 Operation Unit.
12. Click [Start].
 - The target’s brightness gradually increases. (dark --> bright)
 - The measurement on the luminance meter is sent to the CS-3.
 - When the transfer of the measurement data has been completed, CALIB.CRT and CALIB_S.CRT files in the HDD of CS-3 will be updated.
13. Upon exit from the “Auto mode” screen, check that there does not show an error message.
14. Turn OFF the power SW of the luminance meter.

10.7.3 Creating the Monitor LUT

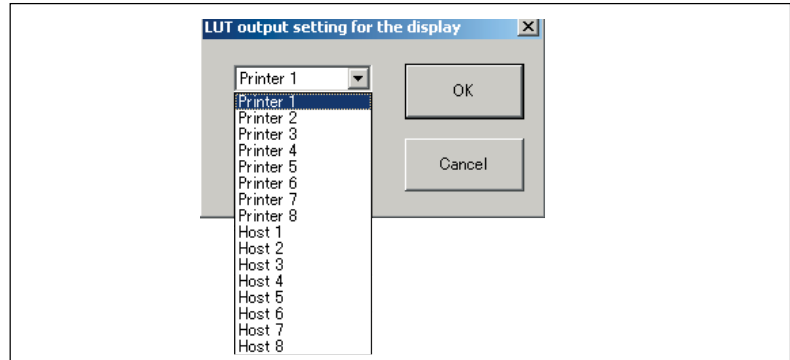
Create a LUT based on the measured luminance, and select the destination of the LUT output.

1. Click [2. LUT making for the display].
“LUT making for the display” dialogue will be shown.



2. Input the luminance measured in the step.5 of "10.7.1 Measuring the Luminance of the Viewer" in “Light box luminance L_0 [cd/m²]”.

3. Input the luminance measured in the step.7 of "10.7.1 Measuring the Luminance of the Viewer" in "Reflection from film L_a [cd/m²]".
4. Click [Lightness linear conversion].
5. Click [Convert/Save].
"LUT output setting for the display" dialogue will be shown.
6. In the pull-down menu, select the device to which the LUT is exported.



7. Click [OK].
After creating the monitor LUT, the screen switches to the "LUT making for the display" dialogue.
8. Repeat the step 5 and 6 to select all devices for which you desire to output the Monitor LUT.
9. Check that there is no error to be shown, and click [Exit].
The screen switches to the "Display calibration tool" dialogue.
 - Files such as P_1.lut, H_1.lut reside in the HDD of CS-3 will be updated.
 - P_1.lut ~ P_3.lut, H_1.lut ~ H_4.lut will be updated according to the setting of destination channels.
10. Click [Exit].
The screen switches to the "Service Tool" screen.
11. Click [Exit] to exit the Service Tool.
12. Click [Shutdown] of the system menu (or [Shut down] of the REGIUS Service Screen) to terminate (turn OFF) the CS-3.
13. Disconnect the connection cable (LS-A12).
14. Turn ON the power SW of CS-3.
 - The new LUT will not become effective until the application software of CS-3 completes the start up sequence.

10.7.4 Check and Readjustment

Compare the appearance of the image between the CS-3 Operation Unit and the actual X-ray film.

1. Verify the setting for the following 3 items are identical to those on the table below.
 - “LUT process for CRT” on “Display Info” screen.(“DISPLAY INFO• Display” Screen, p.8)
 - “Presentation LUT” of “PRINTER INFO” screen. (“PRINTER INFO • Command” Screen , p.37)
 - “Conv. Type” of “PRINTER INFO • COMMAND” screen. (refer to step 4 “Creating the Monitor LUT, p.24”)

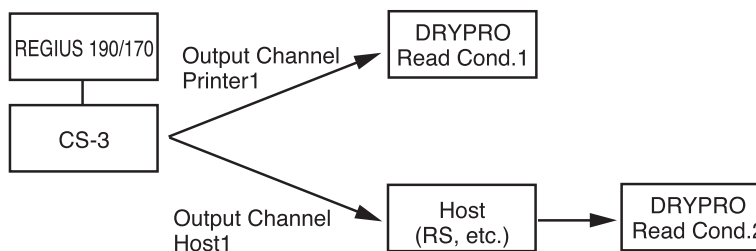
	Connected Printer	
	KonicaMinolta Product	Third Party's GSDF Compatible Printer
LUT Process for CRT	ON	ON (Calibrated using GSDF)
Presentation LUT	OFF	ON
Conv. Type	Lightness linear conversion (std) Lightness equivalent conversion GSDF conversion (input : D value) GSDF conversion (input : P value)	GSDF conversion

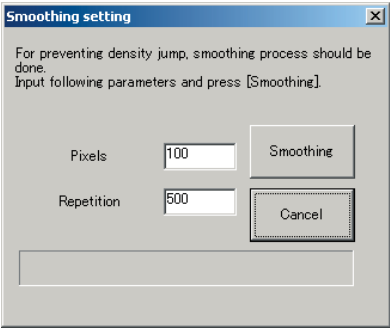
2. Output the image of Chest AP to the printer. If any clinical image is not available at the time of installation, use the chest phantom image that is delivered to be used for the User Tool manual.
3. Compare the image between the one on the CS-3 operation unit and the film on the viewer.

Verify that the density on the following body part looks same.

 - High density area of the lung.
 - Low density area of the mediastinal part and bones.
4. If the gradation looks different, carry out the readjustment following the procedures on the next page.

Remarks When the REGIUS 190/170 is connected to a host, and need to create the LUT for CRT for host output channel, input the reading circumstances of the printer that is targeted by the host in those items, i.e. the step 2 of “Viewer Luminance Lo” of “10.7.3 Creating the Monitor LUT” and “Film Reflection Luminance La”.



The image on the CS-3 Operation Unit is darker than that on the film	The image on the CS-3 Operation Unit is lighter than that on the film
<ol style="list-style-type: none"> 1) Select [GSDF Conversion] instead of [Lightness linear convention] in the setp.4 of "10.7.3 Creating the Monitor LUT". 2) Click [Convert/Save]. 3) Select the destination device to which the new LUT should be applied, and click [OK]. 4) Click [Exit]. 	<ol style="list-style-type: none"> 1) Select [Lightness equivalent convention] instead of [Lightness linear convention] in the setp.4 of "10.7.3 Creating the Monitor LUT". 2) Click [Convert/Save]. 3) Select the destination device to which the new LUT should be applied, and click [OK]. <p>"Smooth Set" screen will be shown.</p>  <ol style="list-style-type: none"> 4) Input "100" in [Smooth Points], "500" in [Repeats]. <ul style="list-style-type: none"> • Larger the input value in [Repeats], darker the brightness of CS-3 Operation Unit. 5) Click [Exe]. 6) Select the destination device to which the new LUT should be applied, and click [OK]. 7) Click [Exit].

10.8 Restore the Original JM from Back Up JM

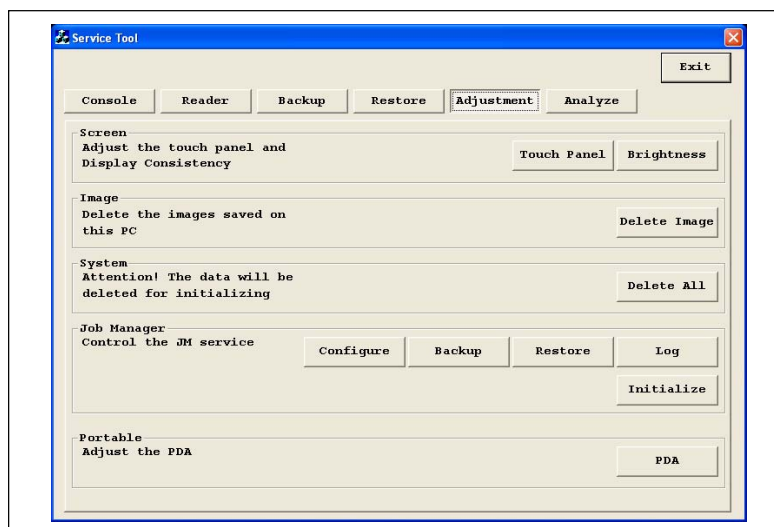
When there is a back up JM installed in the system, switch over from standard JM to back up JM can be managed by user in a simple manner.

However, switch over from back up JM to standard JM after the standard JM has resumed normal function can not be managed by user. It needs "Service Tool" to implement the switch over.

10.8.1 Preparation & Initialization of Standard JM

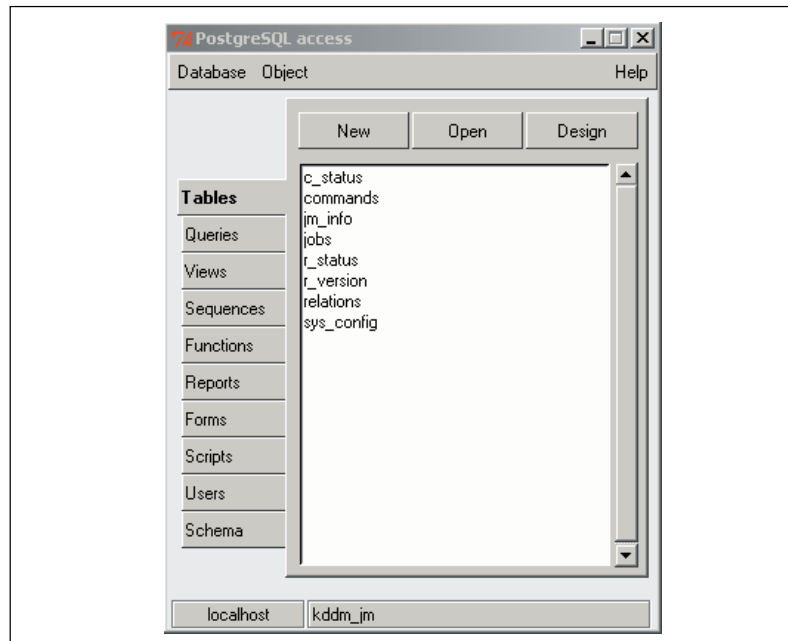
This procedure should be carried out on a standard JM (i.e. CS-3 that uses an external JM or internal JM).

1. Replace or repair the faulty JM.
2. Start up the standard JM, and start "Service Tool" from "REGIUS Service" screen.
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.
3. Restore the system information and JM data base.
Refer to "10.2.2 Restore of System Information" and "10.3.2 Restore of JM Information".
4. Click [Adjustment] of "Service Tool" screen.



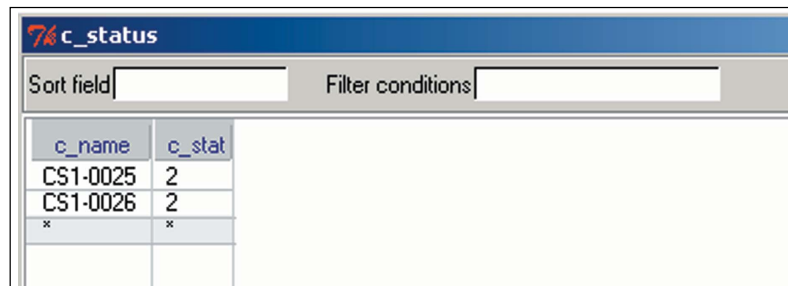
5. Click [Configure] of "Job Manager".

PostgreSQL access tool will start.



6. Double-click [c_status] of “PostgreSQL access” tool.

“c_status” screen will be shown.

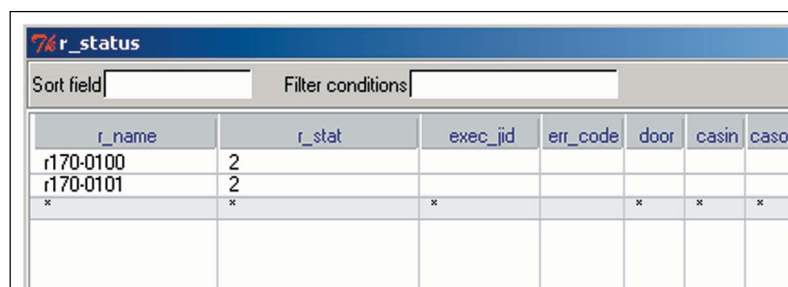


7. Check that “c_stat” value for each CS-3 is set to “2”.
 - If it is not set to “2”, click the figure, and input “2”.

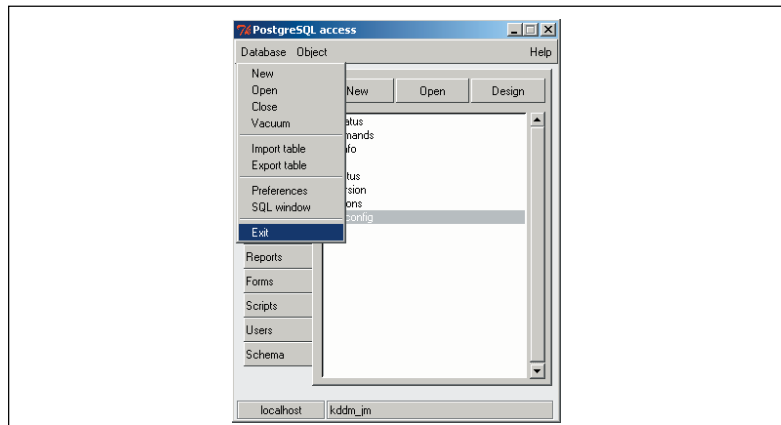
8. After verifying the number, click [Close].

9. Double-click [r_status] of “PostgreSQL access” tool.

“r_status” screen will be shown.

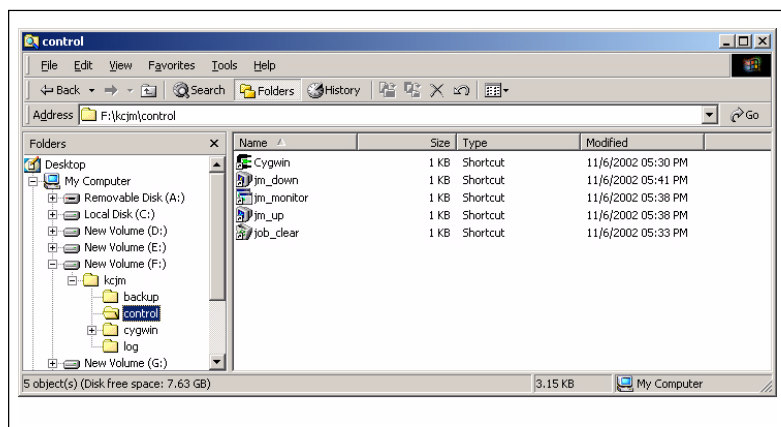


10. Check that “r_stat” value for each REGIUS 190/170 is set to “2”.
 - If it is not set to “2”, click the figure, and input “2”.
11. After verifying the number, click [Close].
12. Click “Database” menu on “PostgreSQL access” screen, and select [Exit].



“PostgreSQL access” tool will close, and switches to “Service Tool” screen.

13. Click [Back] of “Service Tool” screen, then click [Yes] of confirmation dialogue.
Screen switches to “REGIUS Service” screen.
14. Click [Return to Windows Desk Top].
15. Open “F:\kcjm\control\” folder, and double-click [job_clear] icon.



Command prompt appears for a moment, and all jobs within the JM will be cleared.

16. Click [Shutdown (U)] to shut down the external JM.

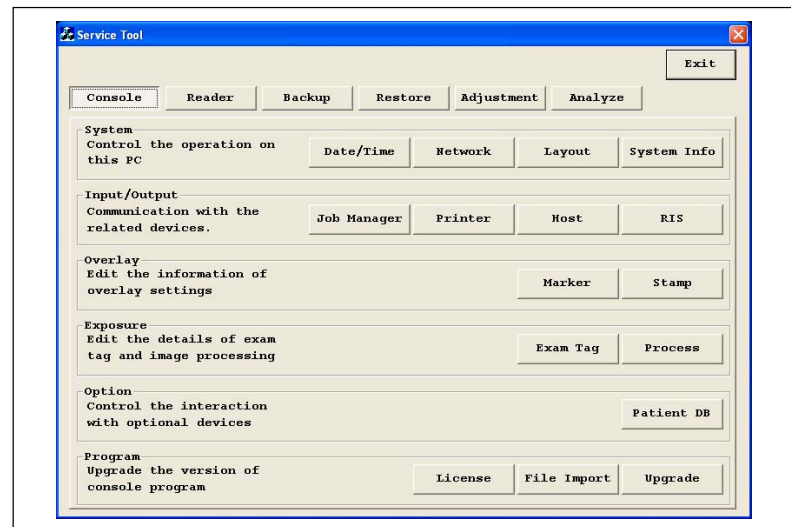
10.8.2 Switch Over to Standard JM

This operation shall be implemented on one CS-3 connected to the system. The information of JM switch over will be automatically delivered to other CS-3(s) connected to the system.

1. Connect a standard JM to the network, and start up all CS-3(s) and REGIUS 190/170(s) connected to the system.
2. Operating one of CS-3(s), and start "Service Tool" from "REGIUS Service" screen.

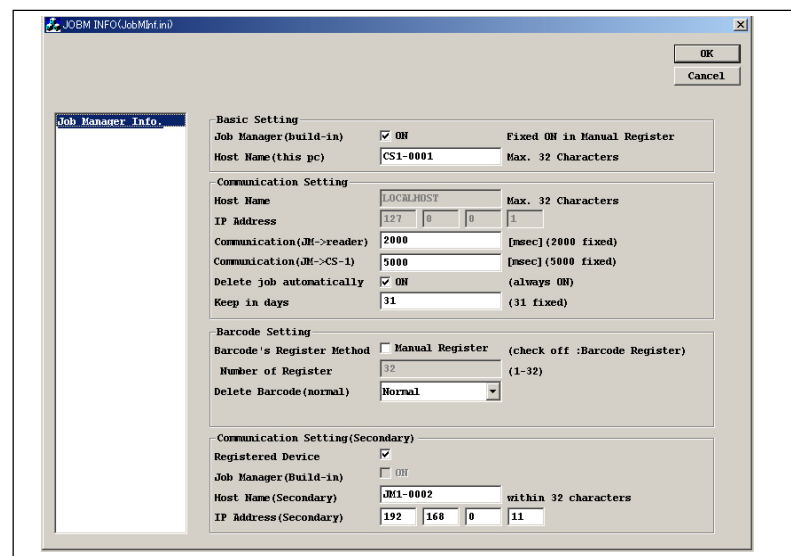
Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.

"Service Tool (Console)" screen will be shown.

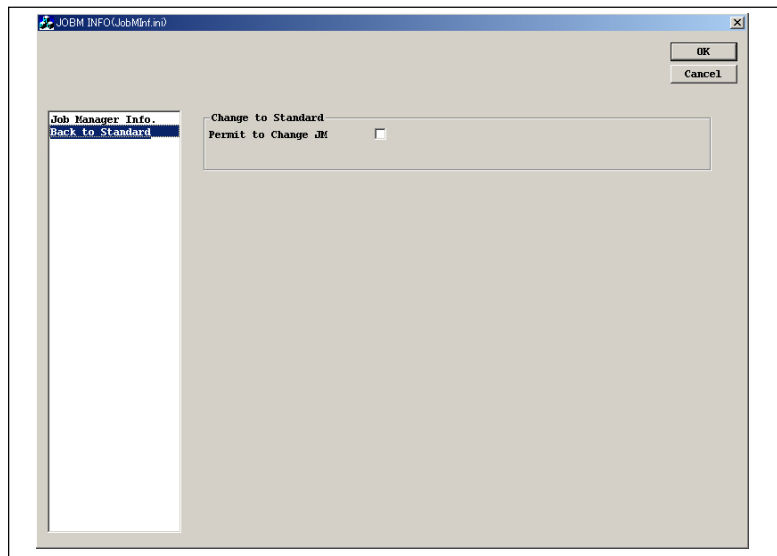


3. Click [Job Manager] of "Input/Output".

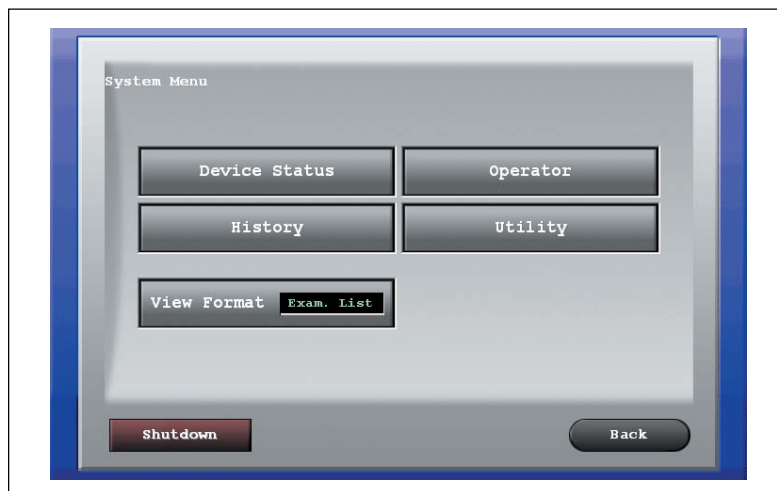
"JOBM INFO • Job Manager" screen will be shown.



4. Select “Back to Standard” in the left menu column.
“JOBM INFO (JobMInf.ini.)” screen will be shown.

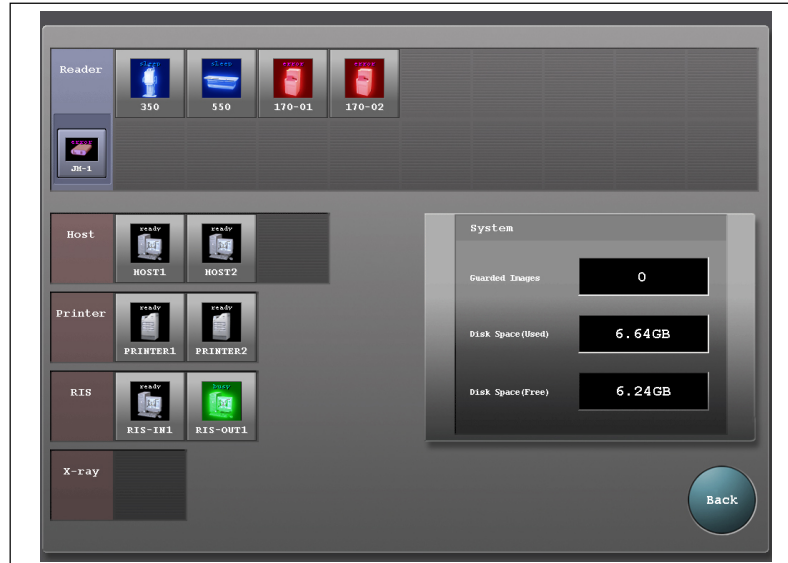


5. Click “Permit to Change JM” box to enable the change.
6. Click [Save & Exit], then click [Yes] of confirmation dialogue.
Screen switches to “Service Tool (console)” screen.
7. Click [Back], then [Yes] of confirmation dialogue.
Screen switches to “REGIUS Service” screen.
8. Click [CS-1] to start the CS-1/CS-1/CS-3 application.
9. Click [KONICA MINOLTA] of initial screen (“Examination List” or “Examination Search” screen).
System Menu will be shown.



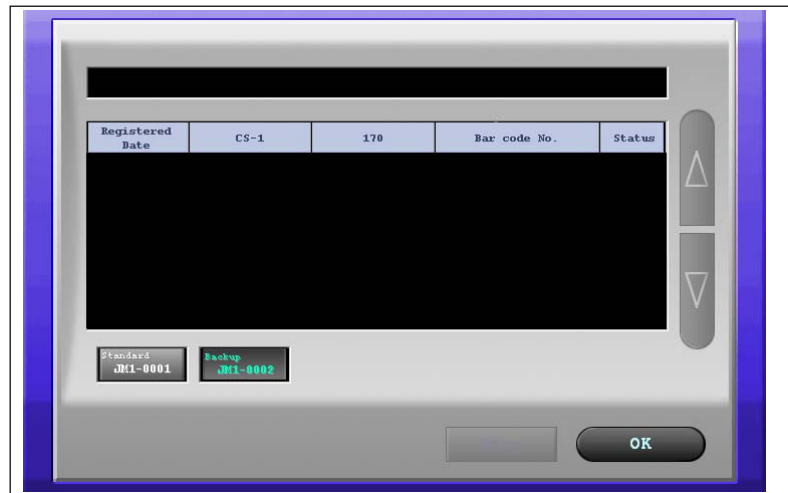
10. Click [Device Status].

“Device Status” screen will be shown.



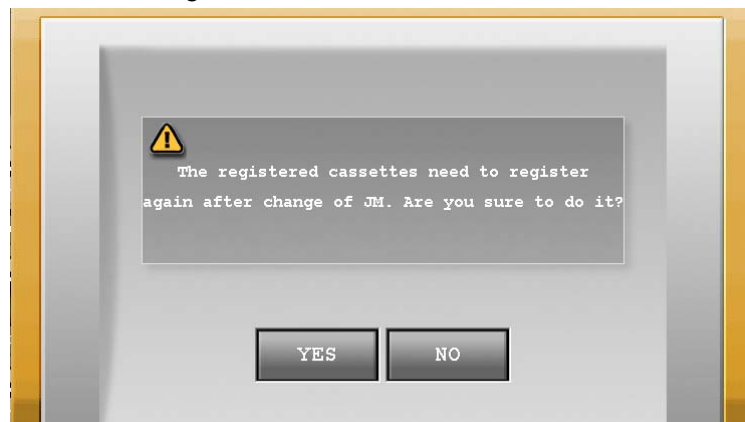
11. Click [JM-1] below “Reader”.

“JM-1 Status Check” screen will be shown.



12. Click [Standard JM1-0001], then [OK].

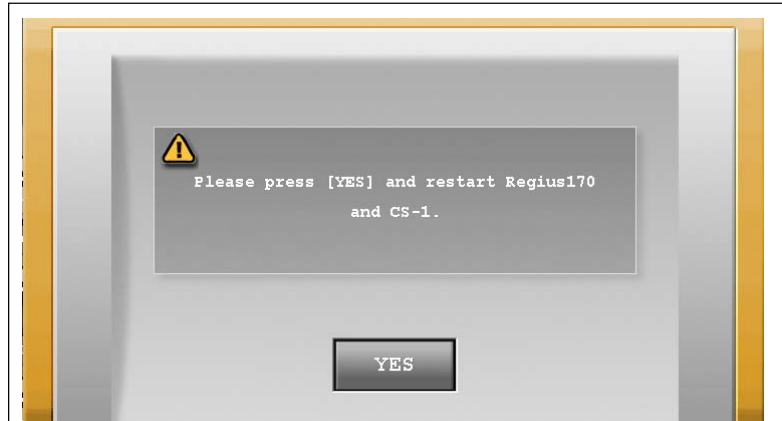
Confirmation dialogue will be shown.



13.

 Click [Yes].

A message to confirm start up of CS-3, REGIUS 190/170.

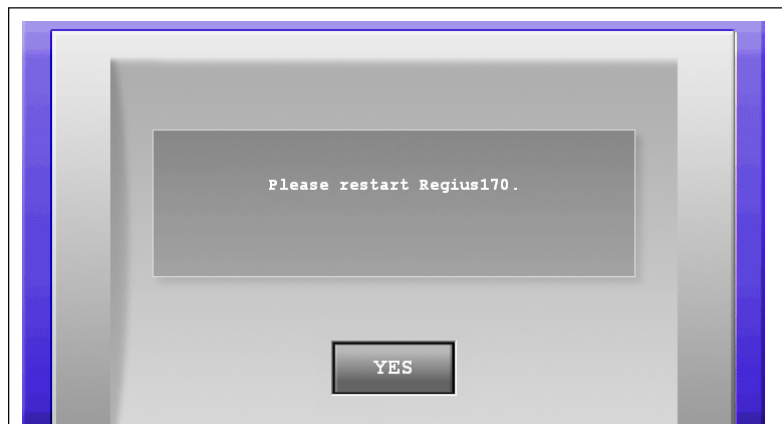


14.

 Check that all CS-3s and REGIUS 190/170s that are connected to the system have started up, then click [YES].

<Important> At this stage, if there is any CS-3 or REGIUS 190/170 that is not yet started can not receive the JM switch over information. Always check that all of those connected to the system have been started up.

Switch over of the JM took place, and confirmation dialogue will be shown.



15.

 Click [YES], and restart all REGIUS 190/170s that are connected to the system.

Carrying out the above procedure completes the switch over of the JM has completed.

- Carry out a test reading on all CS-3s and REGIUS 190/170s, and verify that the standard JM is operating normal.
- After verifying the standard JM's operation, initialize the back up JM according to the same procedure as described in "10.8.1 Preparation & Initialization of Standard JM".



Chap.11

Disassembly & Assembly of CS-3

In this chapter, disassembly and assembly of the CS-3 Control Unit and parts replacement procedures are described.

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11.1 Disassembling the CS-3 Control Unit

11.1.1 Opening the top cover

1. Terminate the CS-1/CS-1/CS-3 application and turn off the power.
Before turning off the power, make sure that all media (floppy disk, CD-R, etc. are removed from each bay)
2. Unplug the power cable from the wall outlet.
3. Unplug all cables connected to the CS-3.
<Important> Cables includes the I/O cable and all of those connected to the CS-3.
4. Remove the upright stand when installed.
5. Unlock the cover lock when it is engaged.
6. Lift the top cover of the CS-3 while pressing the two buttons at the both sides. See figure below.

11.1.2 Replacing the internal FAN

Under construction

11.1.3 Replacing the HDD

1. Open the top cover of the CS-3.
2. Rotate the drive bay along the arrow.
3. Unplug the IDE cable from the CD-R drive.
<Important>When disconnecting the IDE connector, always pull the blue strap tied to the connector to pull the connector out. Never pull the flat cable instead.
4. Unplug the IDE cable and power cable from the HDD.
<Important>When disconnecting the IDE connector, always pull the blue strap tied to the connector to pull the connector out. Never pull the flat cable instead.
5. Slightly lean the HDD towards the rear of the unit while holding the blue handle mounted on the HDD bracket.
6. Pull out the whole unit of the HDD from the hard disk bay.
7. Remove the HDD from the HDD bracket.
8. Install a new HDD onto the HDD bracket.
9. Install the HDD bracket onto the drive bay in the reverse order employed for installation, and connect the IDE cable and power cable.
10. Set the drive bay to its original position and close the top cover of the CS-3.



Chap.12

Troubleshooting

In this chapter, troubleshooting of the CS-3 is described.

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12.1 Troubles at the Installation of CS-3

12.2 Trouble in Use of CS-3

Troubles which may be encountered in use of the CS-3 and remedies are listed below. When the remedy does not help to solve the problem, replace the CS-3 Control Unit.

12.3 Error Message List of CS-1/CS-3 application

Error Nos and messages which may be displayed on the window during operation of CS-3 are listed below.

Should the error repeat even after the remedy, back up the system information, logs, JM logs in the super disk.

•Refer to "10.2 Back Up & Restore of System Information", "12.4 Collecting the Logs"

12.3.1 Errors relating to hardware and software

Errors shown below are those that will be displayed on the window when there occurs abnormalities with the CS-3 hardware or application software.

Error No.	Message	Remedy
No Number	Hard disk error. Call your field service engineer.	Occurs when remaining memory space becomes small. Occurs when output data or RIS result-send data piles up in the queue as well as error with hard disk. Check if the image output or RIS send-result is OFF.
1000	Resource error [%s,%X], restart.	Restart the CS-3
1001	Resource error [%s,%X], restart.	
1002	Resource error [%s,%X], restart.	
1003	Resource error [%s,%X], restart.	
1004	Resource error [%s,%X,%X], restart.	
1005	Resource error [%s,%X,%X], restart.	
1006	Resource error [%X,%X], restart.	
1007	Resource error [%s,%X], restart.	
1008	Resource error [%s,%X], restart.	
1010	Resource error [%d,%X], restart.	
1011	Resource error [%d,%X], restart.	
1012	Resource error [%d,%X], restart.	
1015	Resource error [%d,%X], restart.	
1016	Resource error [%d,%X], restart.	
1020	Resource error [%d,%X], restart.	
1021	Resource error [%d,%X], restart.	
1022	Resource error [%s,%X], restart.	
1023	Resource error [%s,%X], restart.	
1024	Resource error [%s,%X], restart.	
1025	Resource error [%s,%X], restart.	
1026	Resource error [%s,%X], restart.	
1027	Resource error [%X], restart.	
1030	Resource error [%s,%X], restart.	
1031	Resource error [%s,%X], restart.	
1032	Resource error [%d,%X], restart.	
1033	Resource error [%d,%X], restart.	
1040	Resource error [%s,%X], restart.	
1041	Resource error [%s,%X], restart.	
1042	Resource error [%s,%X], restart.	
1043	Resource error [%s,%X], restart.	
1044	Resource error [%s,%X], restart.	
1050	Resource error [%s,%X], restart.	
1051	Resource error [%s], restart.	
1052	Resource error [%s], restart.	
1053	Resource error [%s], restart.	

12.3.2 Errors relating to communication (HOST/Printer/RIS)

Error Nos and messages which may be displayed on the window when abnormality occurs in communication between CS-3, HOST, Printer, and RIS..

Error No.	Message	Remedy
1060	Faulty communication setting [%s,%X]. Call service engineer.	1. Check the communicating device on other side. 2. Check networking devices and cables. 3. Restart the CS-3.
1061	Communication error [%X]. Check communicating device.	
1062	Communication error [%X,%X]. Check communicating device.	
1063	Communication error [%s,%d]. Check communicating device.	
1064	Communication error [%s,%d,%X]. Check communicating device.	
1065	Communication error [%d,%X]. Check communicating device.	
1066	Communication error [%d,%X]. Check communicating device.	
1067	Communication error [%X]. Check communicating device.	
1068	Communication error [%X]. Check communicating device.	
1069	Communication error [%X]. Check communicating device.	
1070	Communication error [%X]. Check communicating device.	
1071	Communication error [%d,%X]. Check communicating device.	
1072	Communication error [%d,%X]. Check communicating device.	
1132	Faulty communication setting [%s]. Call service engineer.	Check the communication setting of the counterpart.
1133	Faulty communication setting [%s]. Call service engineer.	
1134	Faulty communication setting [%s]. Call service engineer.	
1135	Faulty communication setting [%s]. Call service engineer.	
1120	Connection rejected. Check status of communicating counterpart.	
1121	Connection rejected. Check status of communicating counterpart.	
1122	Faulty communication setting. Call service engineer.	
1123	Faulty communication setting. Call service engineer.	1. Check the communicating device on other side. 2. Check networking devices and cables. 3. Restart the CS-3.
1110	Connection rejected [X%]. Check status of communicating counterpart.	
1111	Connection rejected [X%,%X,%X]. Check status of communicating counterpart.	
1112	Receipt data faulty [%X]. Check communication counterpart.	
1113	Receipt data faulty [%X,%X,%d]. Check communication counterpart.	
1124	Communication interrupted [%X]. Check communication setting and communication counterpart.	
1131	Receipt data faulty [%X,%X]. Check status of communication counterpart.	Check the reservation information on which the error occurred.
1100	Reservation failed [%X,%X][%d]. Check reservation data.	
1101	Reservation failed. Check reservation data.	
1102	Reservation failed [%04X,%04X][%d]. Check reservation data.	
1103	Reservation failed [%04X,%04X][%d]. Check reservation data.	
1104	Reservation failed [%04X,%04X][%d]. Check reservation data.	
1105	Reservation failed. Check reservation data.	

Error No.	Message	Remedy
1130	Image data collapsed. Output disabled [%d]	
1150	Image data collapsed. Output disabled [%X]. Put output queue OFF.	
1151	Image data collapsed. Output disabled [%X]. Put output queue OFF.	
1160	Image data collapsed. Output disabled [%X,%X]. Put output queue OFF.	
1140	Fail to save image data[%X,%X]. Check communication counterpart.	

12.3.3 Error relating to output queue control

Errors which will be displayed when abnormality occurs on queue control of CS-1/CS-3 application.

Error No.	Message	Remedy
1400	Inconsistent output queue control [%d,%X]. Call service engineer.	
1401	Inconsistent output queue control [%s,%X]. Call service engineer.	
1402	Output queue registration error.	

12.3.4 Errors relating to RiS

Errors which will be displayed when abnormality occurs on RiS information.

Error No.	Message	Remedy
1450	Inconsistent exam tag [%d,%X]. Call service engineer.	Check the order information sent from RiS.
1452	RiS output queue registration error.	
1500	Setting of system parameters failed [%s,%s,%s,%d]. Call service engineer.	
1501	Setting of system parameters failed [%s,%s,%s,%d]. Call service engineer.	
1502	Setting of system parameters failed. Call service engineer.	
1503	Setting of system parameters failed [%04X,%04X] [%X]. Call service engineer.	
1504	Setting of system parameters failed [%04X,%04X] [%X,%d]. Call service engineer.	
1505	Setting of system parameters failed [%s,%s]. Call service engineer.	
1506	Setting of system parameters failed [%s,%s]. Call service engineer.	
1507	Setting of system parameters failed [%04X,%04X] [%X,%X,%d]. Call service engineer.	
1508	Setting of system parameters failed [%s,%s]. Call service engineer.	
1509	Setting of system parameters failed [%04X,%04X] [%s]. Call service engineer.	

12.3.5 Errors relating to reading

Errors which may appear while the CS-1/CS-3 application executes reading.

Error No.	Message	Remedy
1218	Input patient ID.	Operated by user.
1219	Input examination ID.	
1220	Input patient name.	
1251	Already reached limit of simultaneous reading.	
1250	Setting of reading condition failed. Call service engineer.	

Error No.	Message	Remedy
1210	Register examination reservation.	Operated by user.
1212	Image not suitable to reading.	
1214	Failed to open image file.	
1215	Reservation file deleted.	

12.3.6 Errors relating to REGIUS 190/170

Errors which may be displayed when there occurs an error on REGIUS 170.

Error No.	Message	Remedy
1252	Failed to acquire relative “jid” information from jobs. [%s]	Restart the REGIUS 190/170 on which an abnormality occurred.
1253	Reading executed on other thread. jid=[%s] OrdNum=[%d]	
1254	Faulty read setting. Call service engineer.	
1280	Reader error kick. Jid=[%s] Err=[%s].	
1281	Image reading of ID[%s], Name [%s] [%s], Exam. Time [%02d:%02d:%02d] failed. [%s]	
1282	Error occurred. jid=[%s][%s].	
1283	Error occurred [%s].	

- When an error occurs on REGIUS 190/170, refer to “REGIUS Service” manual for how to remedy the trouble.

12.3.7 Errors relating to REGIUS 350

Errors which will be displayed when an abnormality occurs on REGIUS 350.

Error No.	Message	Remedy
1208	Exposer after erasure.	Operated by user.
1213	Reading being executed on other reader device. Wait for while.	
1211	Delete selected reader device.	
1216	Synchronizing with X-ray tube. Wait for while.	
1231	Reading interrupted.	
1200	Check connection with reader device. [%s,%d,%d,%d,%X,%X,%X]	Restart REGIUS 350 on which an error occurred.
1201	Failed to connect with reader device. [%d,%d,%d,%X,%X,%X]	
1202	Error in communication with reader device. [%X,%X,%X,%X] Call service engineer.	
1203	Error in communication with reader device. [%X,%X,%X,%X] Call service engineer.	
1204	Error in communication with reader device. [%X,%X] Call service engineer.	
1205	Interlock error of device. Call service engineer.	
1217	Error on reader device. Call service engineer.	
1240	Alarm for LD power decrease. Call service engineer.	
1241	Alarm for erase lamp A's power decrease. Call service engineer.	
1242	Alarm for erase lamp B's power decrease. Call service engineer.	
202	Intermittent erase lamp not OFF-A error	
203	Intermittent erase lamp not OFF-B error	
204	Intermittent erase lamp not OFF-A,B error	
241	Corr. CPU status communication error	
242	Corr. CPU status error	
261	Corr. CPU error command communication error	
262	Corr. CPU error status overflown	
02A1	Frame memory error	
0321	Upper/lower sensor simultaneously triggered	
0341	Alarm for servo motor (driver overheated)	
0342	Alarm for servo motor (overcurrent)	
0343	Alarm for servo motor (overflow)	
0361	Upper/lower sensor simultaneously triggered	
0362	Upper sensor not disengaged error	
0363	Lower sensor detect time-out	
0364	Upper sensor not disengaged after 2 seconds of operation start	
0365	Alarm for servo motor (driver overheated)	
0366	Alarm for servo motor (overcurrent)	
0367	Alarm for servo motor (overflow)	
0401	Alarm for servo motor (driver overheated)	
0402	Alarm for servo motor (overcurrent)	

Error No.	Message	Remedy
0403	Alarm for servo motor (overflow)	Restart REGIUS 350 on which an error occurred.
0411	Lower sensor not disengaged after 2 seconds of operation start	
0412	Alarm for servo motor (driver overheated)	
0413	Alarm for servo motor (overcurrent)	
0414	Alarm for servo motor (overflow)	
0421	Time-out & sensor open overrun	
0422	Time-out & sensor open underrun	
0423	Time-out within specified pulses	
0424	Overrun between sensors	
0425	Underrun between sensors	
0431	Erase lamp not ON	
0501	Alarm for servo motor (driver overheated)	
0502	Alarm for servo motor (overcurrent)	
0503	Alarm for servo motor (overflow)	
0511	Upper sensor not disengaged after 2 seconds of operation start	
0512	Alarm for servo motor (driver overheated)	
0513	Alarm for servo motor (overcurrent)	
0514	Alarm for servo motor (overflow)	
0531	Time-out in descending subscan	
0541	Intermittent erase lamp not OFF-A error	
0542	Intermittent erase lamp not OFF-B error	
0543	Intermittent erase lamp not OFF-A,B error	
0551	Polygon PLL lock error	
0561	HSync kept active	
0562	Polygon index kept active	
0571	HSync not detected	
0572	HSync insufficient	
0573	HSync excessive	
0574	Polygon index not detected	
0575	Polygon index excessive	
0581	LD overcurrent 2 error	
0582	LD strong, Hsync not detected 2 error	
0583	LD overcurrent 1 error	
0584	LD strong, Hsync not detected 1 error	
0585	LD weak, Hsync not detected 2 error	
0586	HSync not detected 2 error	
0587	LD weak, Hsync not detected 3 error	
0588	HSync not detected 3 error	
0589	±15V power supply error	
058A	LD weak, Hsync not detected 1 error	
058B	HSync not detected 1 error	
0591	Polygon PLL lock error before gain offset	
0592	CPU communication error at gain offset	
0593	Hsync error at gain offset	
0594	Out of target range (Hi) error	

Error No.	Message	Remedy
0595	Out of target range (Lo) error	Restart REGIUS 350 on which an error occurred.
0596	Error at gain calculation	
0597	Error at offset calculation	
0701	Intermittent erase lamp not ON	
0702	Intermittent erase lamp not OFF-A error	
0703	Intermittent erase lamp not OFF-B error	
0704	Intermittent erase lamp not OFF-A,B error	
0711	Intermittent erase lamp not ON	
0712	Intermittent erase lamp not OFF-A error	
0713	Intermittent erase lamp not OFF-B error	
0714	Intermittent erase lamp not OFF-A,B error	
0802	Intermittent erase lamp not OFF-A error	
0803	Intermittent erase lamp not OFF-B error	
0804	Intermittent erase lamp not OFF-A,B error	
0811	Upper/lower sensor simultaneously triggered	
0812	Lower sensor not detected error	
0813	Alarm for servo motor (driver overheated)	
0814	Alarm for servo motor (overcurrent)	
0815	Alarm for servo motor (overflow)	
0821	Corr. CPU read command communication error	
0841	Polygon PLL lock error	
0862	Lower sensor not disengaged error	
0863	Lower sensor not disengaged after operation start	
0864	Polygon PLL lock error	
0865	HSync loss-1 error	
0866	HSync loss-2 error	
0867	HSync excessive error	
0868	Alarm for servo motor (driver overheated)	
0869	Alarm for servo motor (overcurrent)	
086A	Alarm for servo motor (overflow)	
0901	Overflow between sensors.	
0902	Underrun between sensors.	
0911	Erase lamp not ON error	
0A01	Alarm for servo motor (driver overheated)	
0A02	Alarm for servo motor (overcurrent)	
0A03	Alarm for servo motor (overflow)	
0A11	Upper sensor not disengaged after operation start	
0A12	Alarm for servo motor (driver overheated)	
0A13	Alarm for servo motor (overcurrent)	
0A14	Alarm for servo motor (overflow)	
0A31	Time-out in subscan descending	
0A41	Erase lamp not OFF-A error	
0A42	Erase lamp not OFF-B error	
0A43	Erase lamp not OFF-A,B error	
0B02	Intermittent erase lamp not OFF-A error	

Error No.	Message	Remedy
0B03	Intermittent erase lamp not OFF-B error	Restart REGIUS 350 on which an error occurred.
0B04	Intermittent erase lamp not OFF-A,B error	
0B11	Alarm for servo motor (driver overheated)	
0B12	Alarm for servo motor (overcurrent)	
0B13	Alarm for servo motor (overflow)	
0B21	Lower sensor not disengaged after operation start	
0B22	Alarm for servo motor (driver overheated)	
0B23	Alarm for servo motor (overcurrent)	
0B24	Alarm for servo motor (overflow)	
0B31	Time-out & overrun between sensors	
0B32	Time-out & underrun between sensors	
0B33	Time-out within specified pulses	
0B34	Overrun between sensors.	
0B35	Underrun between sensors.	
0B41	Erase lamp not ON error	
0C01	Alarm for servo motor (driver overheated)	
0C02	Alarm for servo motor (overcurrent)	
0C03	Alarm for servo motor (overflow)	
0C11	Upper sensor not disengaged after operation start	
0C12	Alarm for servo motor (driver overheated)	
0C13	Alarm for servo motor (overcurrent)	
0C14	Alarm for servo motor (overflow)	
0C31	Time-out in subscan descending	
0C41	Erase lamp not OFF-A error	
0C42	Erase lamp not OFF-B error	
0C43	Erase lamp not OFF-A,B error	
0D02	Intermittent erase lamp not OFF-A error	
0D03	Intermittent erase lamp not OFF-B error	
0D04	Intermittent erase lamp not OFF-A,B error	
0E21	Upper/lower sensor simultaneously detected	
0E41	Alarm for servo motor (driver overheated)	
0E42	Alarm for servo motor (overcurrent)	
0E43	Alarm for servo motor (overflow)	
0E61	Upper/lower sensor simultaneously detected	
0E62	Lower sensor not disengaged	
0E63	Lower sensor detect time-out	
0E64	Upper sensor not disengaged after operation start	
0E65	Alarm for servo motor (driver overheated)	
0E66	Alarm for servo motor (overcurrent)	
0E67	Alarm for servo motor (overflow)	
0E91	Alarm for servo motor (driver overheated)	
0E92	Alarm for servo motor (overcurrent)	
0E93	Alarm for servo motor (overflow)	
0EA1	Lower sensor not disengaged after operation start	
0EA2	Alarm for servo motor (driver overheated)	

Error No.	Message	Remedy
0EA3	Alarm for servo motor (overcurrent)	Restart REGIUS 350 on which an error occurred.
0EA4	Alarm for servo motor (overflow)	
0EB1	Time-out & overrun between sensors	
0EB2	Time-out & underrun between sensors	
0EB3	Time-out within specified pulses	
0EB4	Overrun between sensors	
0EB5	Underrun between sensors	
0EC1	Erase lamp not ON error	
0F01	Alarm for servo motor (driver overheated)	
0F02	Alarm for servo motor (overcurrent)	
0F03	Alarm for servo motor (overflow)	
0F11	Upper sensor not disengaged after operation start	
0F12	Alarm for servo motor (driver overheated)	
0F13	Alarm for servo motor (overcurrent)	
0F14	Alarm for servo motor (overflow)	
0F31	Time-out in subscan descending	
0F41	Erase lamp not OFF-A error	
0F42	Erase lamp not OFF-B error	
0F43	Erase lamp not OFF-A,B error	
0F51	Polygon PLL lock error	
0F61	HSync kept active	
0F62	Polygon index kept active	
0F71	HSync not detected	
0F72	HSync insufficient	
0F73	HSync excessive	
0F74	Polygon index not detected	
0F75	Polygon index excessive	
0F81	LD overcurrent 2 error	
0F82	LD strong, Hsync not detected 2 error	
0F83	LD overcurrent 1 error	
0F84	LD strong, Hsync not detected 1 error	
0F85	LD weak, Hsync not detected 2 error	
0F86	HSync not detected 2 error	
0F87	LD weak, Hsync not detected 3 error	
0F88	HSync not detected 3 error	
0F89	±15V power supply error	
0F8A	LD weak, Hsync not detected 1 error	
0F8B	HSync not detected 1 error	
0F91	Polygon PLL lock error before gain offset	
0F92	CPU communication error at gain offset	
0F93	Hsync error at gain offset	
0F94	Out of target range (Hi) error	
0F95	Out of target range (Lo) error	
0F96	Error at gain calculation	
0F97	Error at offset calculation	

Error No.	Message	Remedy
1002	Intermittent erase lamp not OFF-A error	Restart REGIUS 350 on which an error occurred.
1003	Intermittent erase lamp not OFF-B error	
1004	Intermittent erase lamp not OFF-A,B error	
1031	Error in writing Logs	
1051	Error in writing PMT gain	
1071	Error in writing system information	
1102	Intermittent erase lamp not OFF-A error	
1103	Intermittent erase lamp not OFF-B error	
1104	Intermittent erase lamp not OFF-A,B error	
1211	Error in writing in Flash	
1311	Flash verification error	
1402	Intermittent erase lamp not OFF-A error	
1403	Intermittent erase lamp not OFF-B error	
1404	Intermittent erase lamp not OFF-A,B error	
F021	DMA parity error	
F022	MPU parity error	
F024	SCSI parity error	
F025	SCSI & DMA parity error	
F026	SCSI & MPU parity error	
F029	Offset error	
F02A	Short transfer period error	
F02B	Offset error & Short transfer period error	
F02C	REQ/ACK time-out	
F031	Disconnected in transfer progress	
F032	Phase error in transfer progress	
F042	Command step (ATN condition detected)	
F043	Command step (ATN condition detected) & MSG received	
F047	Command step (ATN condition detected) & MSG received not received	
F054	Initial phase error	
F055	Initial phase error & MSG received	
F056	Initial phase error & STATUS received	
F05D	Initial phase error & MSG not received	
F05E	Initial phase error & STATUS not received	
F0FE	Data transfer error	
F0FF	SPC busy	
F100	Elevator stand driver BUSY signal interrupted	
F101	Elevator stand driver power disconnected	
F102	Elevator stand driver overload protect	
F103	Elevator stand driver overvoltage protect	
F104	Elevator stand driver positioning deviation max	
F105	Elevator stand driver overcurrent protect	
F106	Elevator stand driver overspeed	
F107	Elevator stand driver EEPROM data error	
F108	Elevator stand driver encoder error	

Error No.	Message	Remedy
F109	Elevator stand driver low voltage protect	Restart REGIUS 350 on which an error occurred.
F201	X-ray signal error, recycle the power for reader device.	
F202	X-ray signal error, recycle the power for reader device.	
F203	X-ray signal error, recycle the power for reader device.	
F204	X-ray signal error, recycle the power for reader device.	
F300	Erase lamp A not ON	
F301	Erase lamp B not ON	
0001	Corr. CPU memory error	
0002	Control CPU memory error	
0003	Corr. CPU program transmission error	
0004	Control CPU program transmission error	

- When an error occurs on REGIUS 170, refer to “REGIUS 350 Service” manual for how to remedy the trouble.

12.3.8 Errors relating to printer

Errors which will be displayed when an abnormality occurs on printers.

Error No.	Message	Remedy
1170	CHECK PRINTER[%s]	Check the printer on which an error occurred.
2001	BAD RECEIVE MGZ	
2002	BAD SUPPLY MGZ	
2003	CALIBRATING	
2004	CALIBRATION ERR	
2005	CHECK CHEMISTRY	
2006	CHECK SORTER	
2007	CHEMICALS EMPTY	
2008	CHEMICALS LOW	
2009	COVER OPEN	
2010	ELEC CONFIG ERR	
2011	ELEC DOWN	
2012	ELEC SW ERROR	
2013	EMPTY 8X10	
2014	EMPTY 8X10 CLR	
2015	EMPTY 8X10 BLUE	
2016	EMPTY 8X10 DR	
2017	EMPTY 8X10 DR CLR	
2018	EMPTY 8X10 DR BLUE	
2019	EMPTY 8X10 PAPR	
2020	EMPTY 11X14	
2021	EMPTY 11X14 CLR	
2022	EMPTY 11X14 BLUE	
2023	EMPTY 11X14 DR	
2024	EMPTY 11X14 DR CLR	
2025	EMPTY 11X14 DR BLUE	
2026	EMPTY 11X14 PAPR	
2027	EMPTY 14X14	
2028	EMPTY 14X14 CLR	
2029	EMPTY 14X14 BLUE	
2030	EMPTY 14X14 DR	
2031	EMPTY 14X14 DR CLR	
2032	EMPTY 14X14 DR BLUE	
2033	EMPTY 14X14 PAPR	
2034	EMPTY 14X17	
2035	EMPTY 14X17 CLR	
2036	EMPTY 14X17 BLUE	
2037	EMPTY 14X17 DR	
2038	EMPTY 14X17 DR CLR	
2039	EMPTY 14X17 DR BLUE	
2040	EMPTY 14X17 PAPR	
2041	EMPTY 24X24	
2042	EMPTY 24X24 CLR	

Error No.	Message	Remedy
2043	EMPTY 24X24 BLUE	Check the printer on which an error occurred.
2044	EMPTY 24X24 DR	
2045	EMPTY 24X24 DR CLR	
2046	EMPTY 24X24 DR BLUE	
2047	EMPTY 24X24 PAPR	
2048	EMPTY 24X30	
2049	EMPTY 24X30 CLR	
2050	EMPTY 24X30 BLUE	
2051	EMPTY 24X30 DR	
2052	EMPTY 24X30 DR CLR	
2053	EMPTY 24X30 DR BLUE	
2054	EMPTY 24X30 PAPR	
2055	EMPTY A4 PAPR	
2056	EMPTY A4 TRANS	
2057	EXPOSURE FAILURE	
2058	FILM JAM	
2059	FILM TRANSP ERR	
2060	FINISHER EMPTY	
2061	FINISHER ERROR	
2062	FINISHER LOW	
2063	LOW 8X10	
2064	LOW 8X10 CLR	
2065	LOW 8X10 BLUE	
2066	LOW 8X10 DR	
2067	LOW 8X10 DR CLR	
2068	LOW 8X10 DR BLUE	
2069	LOW 8X10 PAPR	
2070	LOW 11X14	
2071	LOW 11X14 CLR	
2072	LOW 11X14 BLUE	
2073	LOW 11X14 DR	
2074	LOW 11X14 DR CLR	
2075	LOW 11X14 DR BLUE	
2076	LOW 11X14 PAPR	
2077	LOW 14X14	
2078	LOW 14X14 CLR	
2079	LOW 14X14 BLUE	
2080	LOW 14X14 DR	
2081	LOW 14X14 DR CLR	
2082	LOW 14X14 DR BLUE	
2083	LOW 14X14 PAPR	
2084	LOW 14X17	
2085	LOW 14X17 CLR	
2086	LOW 14X17 BLUE	
2087	LOW 14X17 DR	

Error No.	Message	Remedy
2088	LOW 14X17 DR CLR	Check the printer on which an error occurred.
2089	LOW 14X17 DR BLUE	
2090	LOW 14X17 PAPR	
2091	LOW 24X24	
2092	LOW 24X24 CLR	
2093	LOW 24X24 BLUE	
2094	LOW 24X24 DR	
2095	LOW 24X24 DR CLR	
2096	LOW 24X24 DR BLUE	
2097	LOW 24X24 PAPR	
2098	LOW 24X30	
2099	LOW 24X30 CLR	
2100	LOW 24X30 BLUE	
2101	LOW 24X30 DR	
2102	LOW 24X30 DR CLR	
2103	LOW 24X30 DR BLUE	
2104	LOW 24X30 PAPR	
2105	LOW A4 PAPR	
2106	LOW A4 TRANS	
2107	NO RECEIVE MGZ	
2108	NO RIBBON	
2109	NO SUPPLY MGZ	
2110	CHECK PRINTER	
2111	CHECK PROC	
2112	PRINTER DOWN	
2113	PRINTER INIT	
2114	PROC INIT	
2115	PROC OVERFLOW FL	
2116	PROC OVERFLOW HI	
2117	RECEIVER FULL	
2118	REQ MED NOT INST	
2119	REQ MED NOT AVAI	
2120	RIBBON ERROR	
2121	SUPPLY EMPTY	
2122	SUPPLY LOW	
2123	UNKNOWN	

- When an error occurs on printers, refer to printer's manual for how to remedy the trouble.

12.4 Collecting the Logs

When a technical claim is reported from the user, collect logs using the procedure described in this paragraph.

For the claim relating to CS-3 system:

Carry out all procedures for log collection and back up described in this paragraph.

For the claim relating to connected devices:

Carry out all procedures for log collection and back up described in this paragraph.

For the claim relating to image quality:

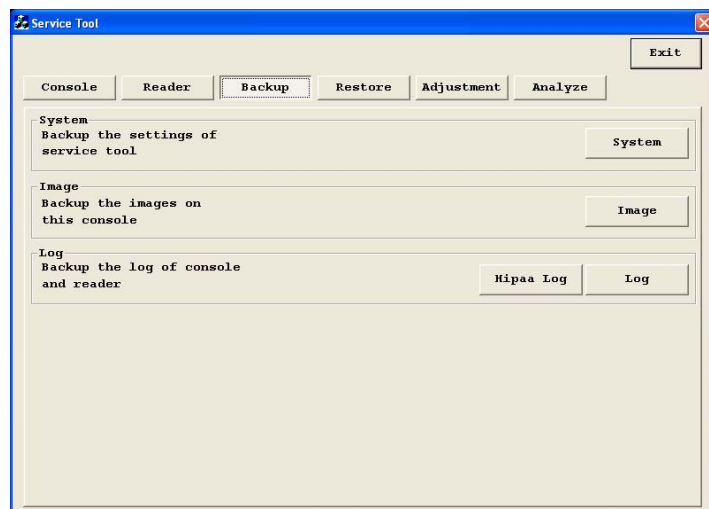
Carry out the procedure described in "[12.5 Back Up of Image \(When technical claim reported\)](#)" in addition to all procedures for log collection and back up described in this paragraph.

12.4.1 Collecting the Application Logs

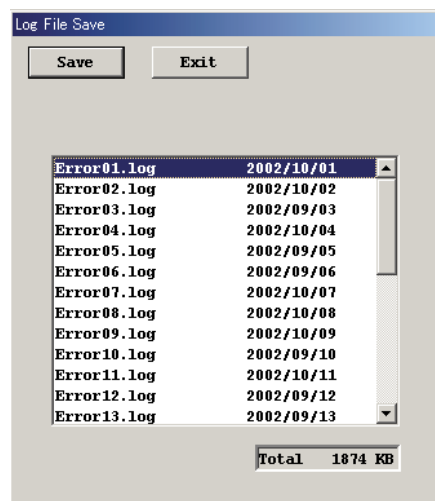
Application logs are detailed operational history of CS-1/CS-3 application software. When an error occurs on the CS-1/CS-3 application, collect error date, application logs about the occurrence date so that it help investigate the cause of errors.

- Implementing “Log” of the Service Tool Screen will save the collected logs in the superdisk.

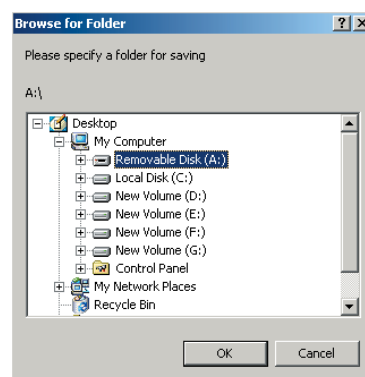
1. Start “Service Tool ” from system menu or “REGIUS Service” screen of CS-3.
Refer to "[1.6.1 Service Tool Screens](#)" for the procedure to open the REGIUS Service Screen.
2. Click [Backup] of “Service Tool” screen (Backup).
“Service Tool” screen (Backup) will be shown.



3. Click [Log] of “Log”.
“Log File Save” screen will be shown.



4. Select the date of the log which shall be backed up, then click [Save].
 • Clicking the logs with [Shift] or [Ctrl] depressed will select multiple error logs.
 “Browse for Folder” screen will be shown.



5. Select an appropriate folder on the desktop (Administrator's document folder, etc.) and click [OK].
A dialogue confirming whether to save or not will be shown.
6. Click [Yes].
 “Saving.....” dialogue will be shown.
 • Log files in the CS-3 HDD are first compressed to one file before they are saved. It may take several minutes.
 Confirmation dialogue will be shown when saving completes.
7. Click [Yes] of the dialogue.

Switches to the “Log File Save” screen.

8. Click [Exit] to close “System Setup File Save” screen.
Switches to the “Service Tool (Backup)” screen.
9. Click [Back] to switch to the “REGIUS Service” screen.
10. Click [Back to Windows Desktop] to display the Windows desktop.
11. Copy the files with extension “Log.lzh” that are selected in the step.6 onto CD-R.

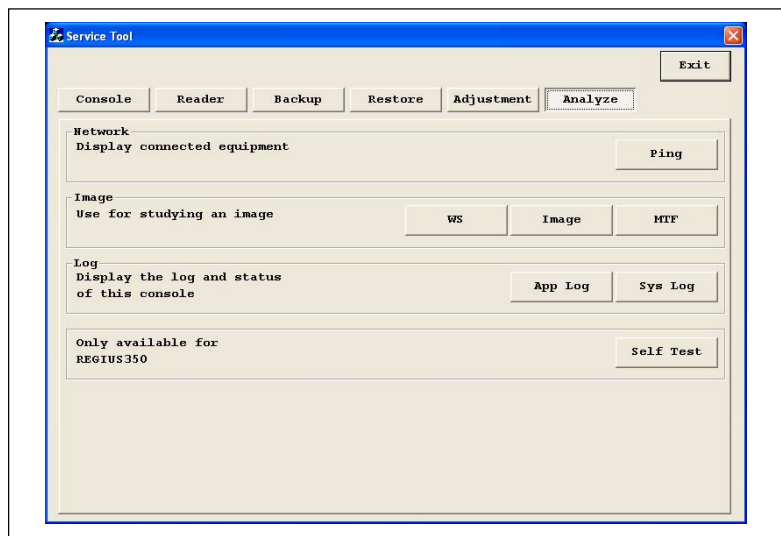
12.4.2 Collecting the System Logs

System logs are history of informations regarding to reading operation on each reader, processing, output, and errors executed or occurred on/from the CS-3. Volume of images handled on the system can also be referred.

- Executing [Log] on “Service Tool (Backup)” will allow the collected logs to be saved in the super disk.

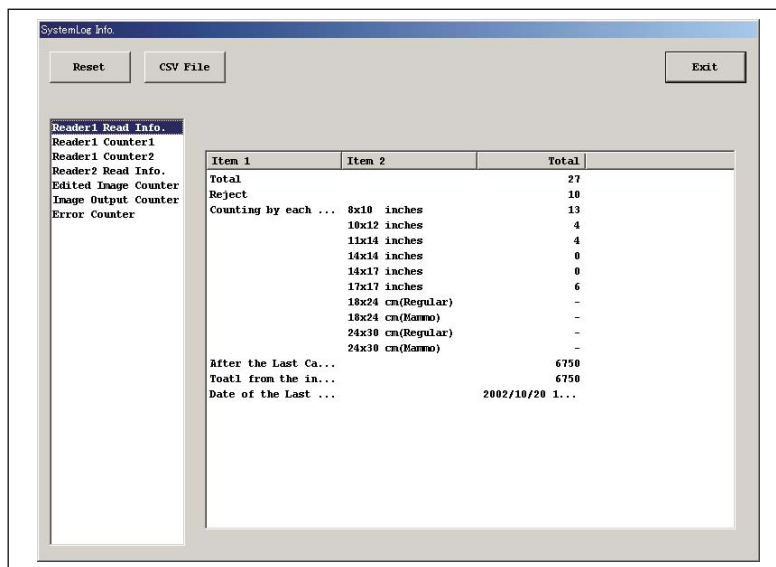
1. Start “Service Tool” from system menu or “REGIUS Service” screen of CS-3.
Refer to ["1.6.1 Service Tool Screens"](#) for the procedure to open the REGIUS Service Screen.

2. Click [Analyze] of “Service Tool” screen (Console).
“Service Tool” screen (Analyze) will be shown.



3. Click [Sys Log].

“SystemLog Info.” screen will be shown



4. To verify the information on the Operation Unit, select the information in the left menu, which you want to collect.

Information of the selected item will be displayed on the screen.

5. Click [CSV File].

System logs will be saved in the hard disk as a file. Upon completion of saving, a dialogue will be shown.

- Logs will be saved under the file name of “SystemLog.csv” in “C:\KonicaMinolta\CS-3\Log\”.
- In the system log, all information that can be displayed on “System Log Info.” screen is contained.

6. Click [YES] to close the dialogue.

7. When you want to reset all information data (processed sheets or error counts, etc.), click [Reset].

Confirmation dialogue will be shown. Clicking [YES] on this dialogue will reset all data to “0”.

8. Click [Exit] to close “SystemLog Info.” screen.

12.4.3 Collecting the Reader Logs

Reader logs are the information regarding the operational history and hardware of the reader, history of errors and warnings, and history of calibrations. Although the reader logs are stored in the reader itself, they can be uploaded onto the CS-3 using “Service Tool”.

In the case of REGIUS 350

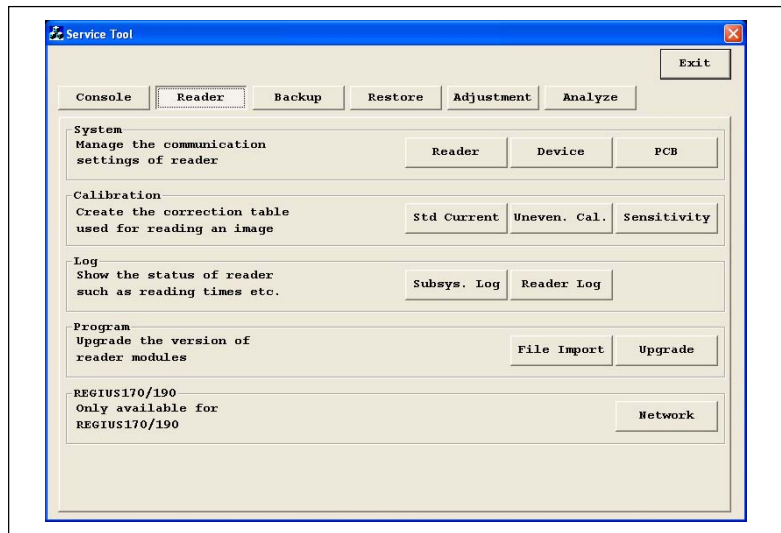
- The reader log uploaded from REGIUS 350 can be stored in the CS-3’s hard disk.

Clicking [Reader Log] of “Service Tool (Backup)” will allow the reader log to be backed up in the floppy disk.

1. Start “Service Tool” from system menu or “REGIUS Service” screen of CS-3.
Refer to 1.6.1“Service Tool Screens”, p.22 for the procedure to open the REGIUS Service Screen.

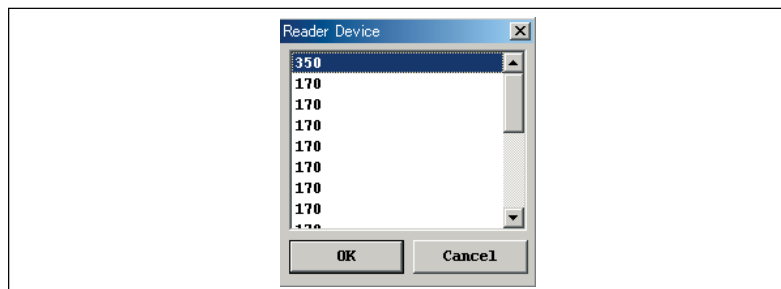
2. Click [Reader] of “Service Tool” screen (Reader).

“Service Tool” screen (Reader) will be shown.



3. Click [Reader Log].

When there are several readers are connected to the CS-3, “Reader Device” screen will be shown.



4. Select the reader device whose reader log should be collected, and click [OK].
“Reader Log Info.” screen will be shown.

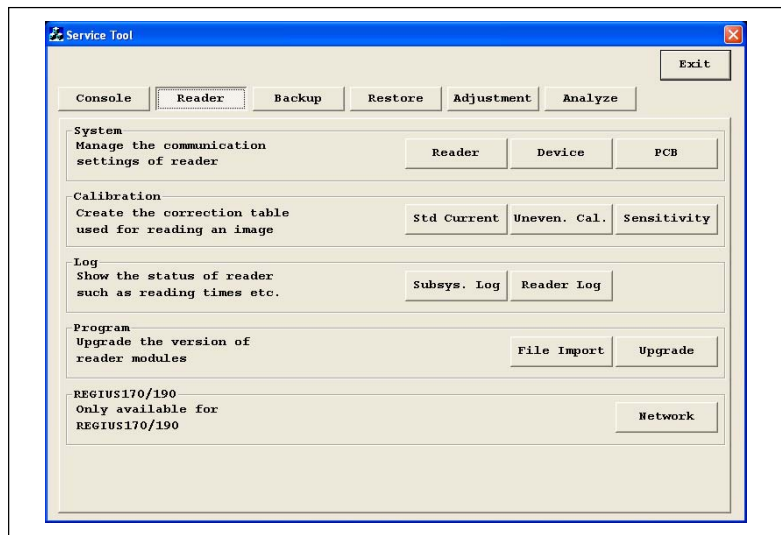
The screenshot shows the "Reader Log Info." window. On the left, a tree view lists "Work Info.", "Unit Info.", "Error Info.", "Warning Info.", and "Calibration Info.". The "Work Info." section is expanded, showing fields for "Serial No." (with a "(Max. 16 Characters)" label), "Date of Establishment" (with a "0" in the day field and dropdowns for "Jan" and "1st"), "Reading Times", "Total Reading Times", "Total Exposure Dose", "Erase Times", "Total Erase Times", "Polygon ON Time" (with a "[min]" label), and "Total Polygon ON Time" (with a "[min]" label). At the top right, there are buttons for "Recv. Log", "Send Log", "Exit", and "Cancel".

5. Click [Recv. Log].
Confirmation dialogue will be shown.
6. Click [YES].
Start receiving the reader log from the selected reader device, and saved in the CS-3's hard disk.
7. To check the reader log information on the Operation Unit, select the desired information in the left column.
The information for the selected item will be shown on the screen.
8. Click [Exit] to close "Reader Log Info." screen.

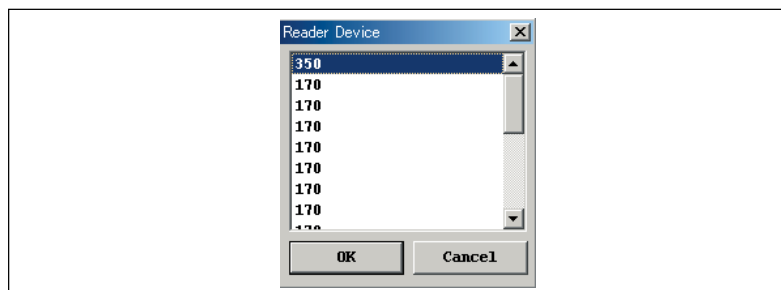
In the case of REGIUS 190/170

- The reader log uploaded from REGIUS /190170 can be stored in the CS-3's hard disk.

1. Start "Service Tool" from system menu or "REGIUS Service" screen of CS-3.
Refer to "1.6.1 Service Tool Screens" for the procedure to open the "REGIUS Service" Screen.
2. Click [Reader] of "Service Tool" screen (Reader).
"Service Tool" screen (Reader) will be shown.



3. Click [Subsys].
When there are several readers are connected to the CS-3, "Reader Device" screen will be shown.

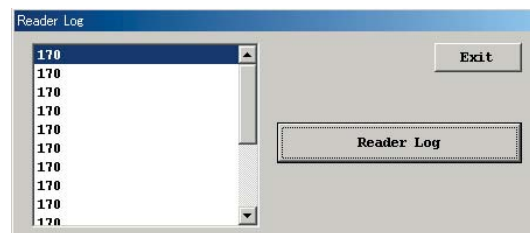


4. Select the reader device whose reader log should be collected, and click [OK].
"Sub Log Create" screen will be shown.



5. Click [Sub Log Create].

Sub log will be created in the selected reader. Upon completion of log creation, a dialogue indicating the end of log creation will be shown.

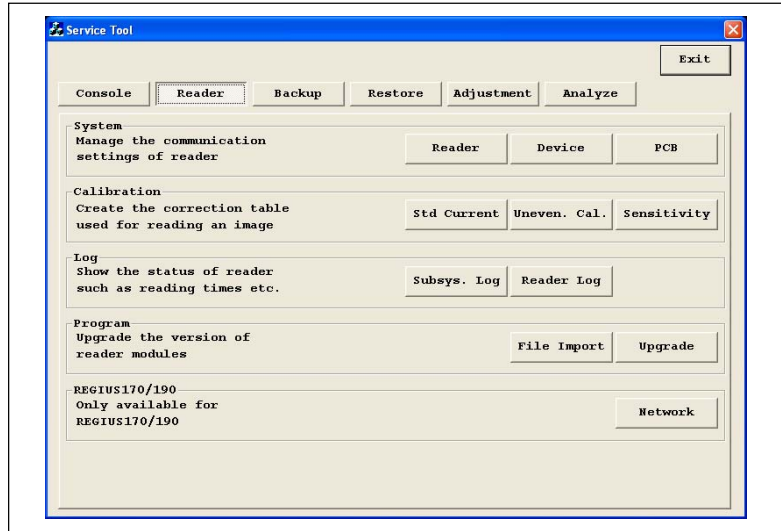


6. Click [Yes].

Returns to the "Sub Log Create" screen.

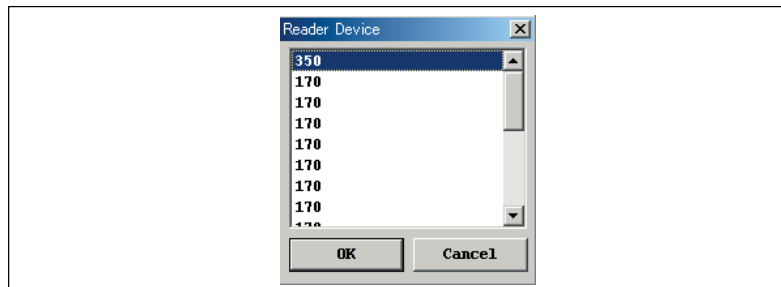
7. Click [Exit].

Returns to “Service Tool (Reader)” screen.



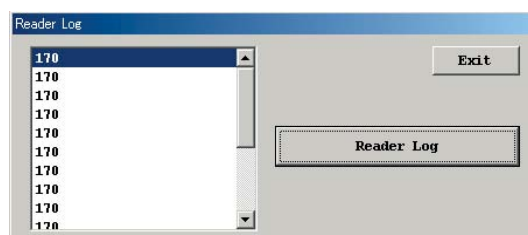
8. Click [Reader Log].

When there are several readers are connected to the CS-3, “Reader Device” screen will be shown.

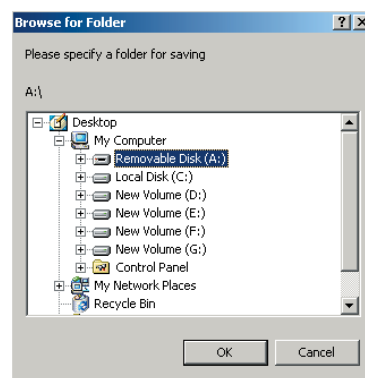


9. Select the device name selected in the step.4 again, and click [OK].

“Reader Log” screen will be shown.



10. Select the device name selected in the step.4 again, and click [Get Reader Log].
“Folder Browse” screen will be shown.



11. Select an appropriate folder on the desktop (Administrator's document folder, etc.) and click [OK].
A dialogue confirming whether to save or not will be shown.
Collecting the reader log from the selected reader, and saved in the selected folder. “Saving ...” dialogue will be displayed while saving and receiving the log data.
12. Click [Yes] when save has completed.
13. Click [Exit] to close “Reader Log” screen.
Returns to the “Service Tool (Reader)” screen.
14. Click [Back] to switch to the “REGIUS Service” screen.
15. Click [Back to Windows Desktop] to display the Windows desktop.
16. Copy the files selected in the step.10 onto CD-R.

12.4.4 Back Up of JM Logs

Back up of JM logs should be carried out in a way different from those for other logs.

<Important>When backing up of logs, collect application logs, system logs, and reader logs before starting back up.

1. Start "Service Tool" from system menu or "REGIUS Service" screen of CS-3.
Refer to "1.6.1 Service Tool Screens" for the procedure to open the REGIUS Service Screen.
2. Click [Adjustment] of "Service Tool" screen (Console).
"Service Tool" screen (Adjustment) will be shown.



3. Insert a floppy disk for saving logs into the floppy disk drive.
4. Click [Log] of "Job Manager".
Log collection and back up will be initiated.

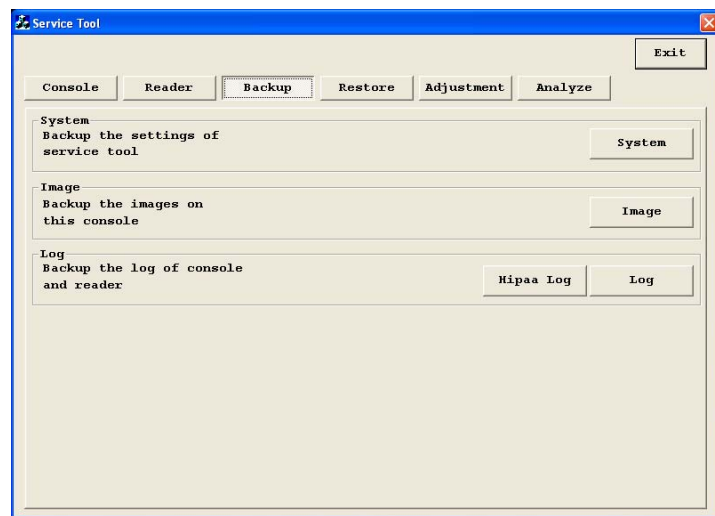
12.5 Back Up of Image (When technical claim reported)

When a technical claim regarding the image quality such as abnormality in image processing, unable to output individual image, abnormality in image reading (unable to display all images, images with noise) is reported, save the claimed image data in a super disk in addition to system information, system logs, and JM logs following the procedure described in the preceeding pages.

1. Start "Service Tool" from system menu or "REGIUS Service" screen of CS-3.
Refer to "1.6.1 Service Tool Screens" for the procedure to open the REGIUS Service Screen.

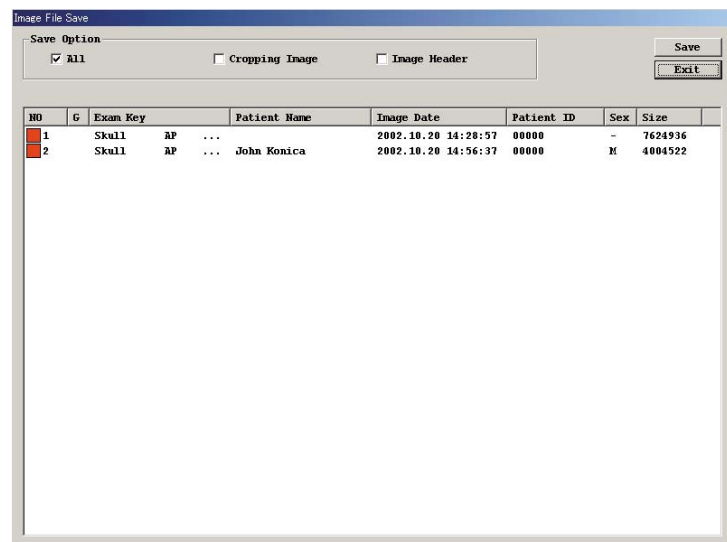
2. Click [Backup] of "Service Tool" screen (Console).

"Service Tool (Backup)" screen will be shown.

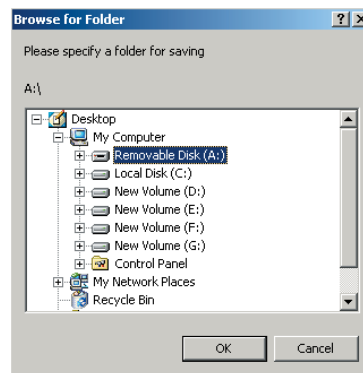


3. Click [Image] of "Image".

"Image File Save" screen will be shown.



4. Select the image which was claimed to be abnormal.
5. Click to select [All] of “Save Option”.
6. Click [OK].
“Browse for Folder” screen will be shown.



7. Select an appropriate folder on the desktop (Administrator's document folder, etc.) and click [OK].
“Saving ...” dialogue will be displayed while saving and receiving the log data.
Upon completion of save, a confirmation dialogue will be shown.
8. Click [Yes] of the dialogue.
9. Click [Exit] to close “<Save> Image File” screen.
Returns to the “Service Tool (Backup)” screen.
10. Click [Back] to switch to the “REGIUS Service” screen.
11. Click [Windows Desktop] to display the Windows desktop.
12. Copy the files selected in the step.7 onto CD-R.



Service Tool Screens



Blanc Page

13.1 Service Tool Overview

13.1.1 Alternative of Starting the Service Tool

- Starting Up the Service Tool from the System Menu

When the Service Tool is initiated from the CS-1/CS-3 application software, the CS-1/CS-3 application program keeps running on the background. Therefore, clicking [Exit] will instantly switches the screen to the application. However, the set items that may affect the operation of CS-1/CS-3 application will be concealed in order to prevent troubles.

Start Up Procedure •••• [KONICA MINOLTA] --> [Utility] --> input the Maintenance Password (default; 5678)

- Starting Up the Service Tool from the REGIUS Service Screen

When the Service Tool is initiated from the REGIUS Service Screen, set up items will be displayed without any limitation. To return to the CS-1/CS-3 application, it is necessary to restart the CS-1/CS-3 application from the REGIUS Service Screen.

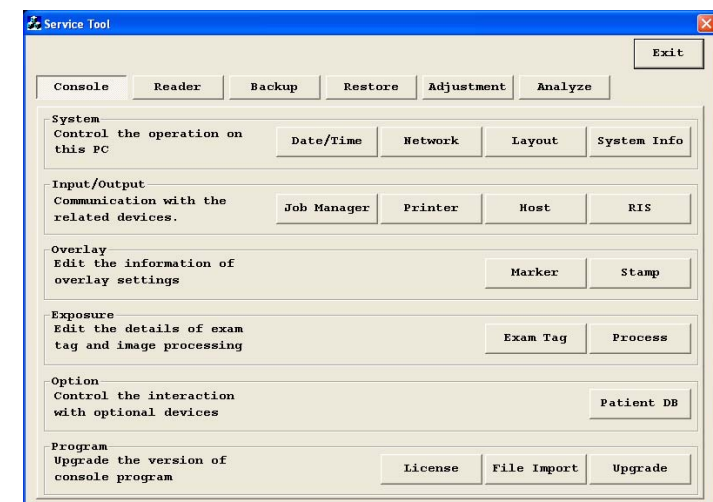
Start Up Procedure •••• [KONICA MINOLTA] --> [Utility] --> input the Maintenance Password (default; 5678) --> [Exit] --> [Shutdown] --> [Yes] --> Select [Service Tool] in the REGIUS Service Screen --> input the Maintenance Password (default; 5678)

13.1.2 Summary of the Service Tool Screens

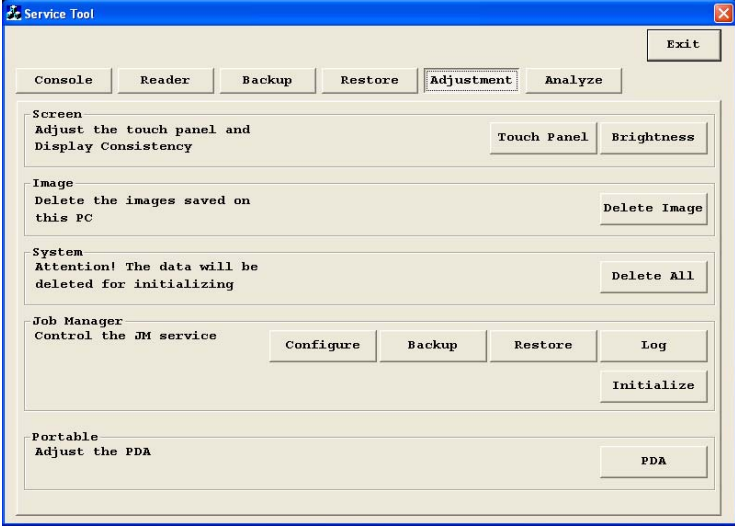
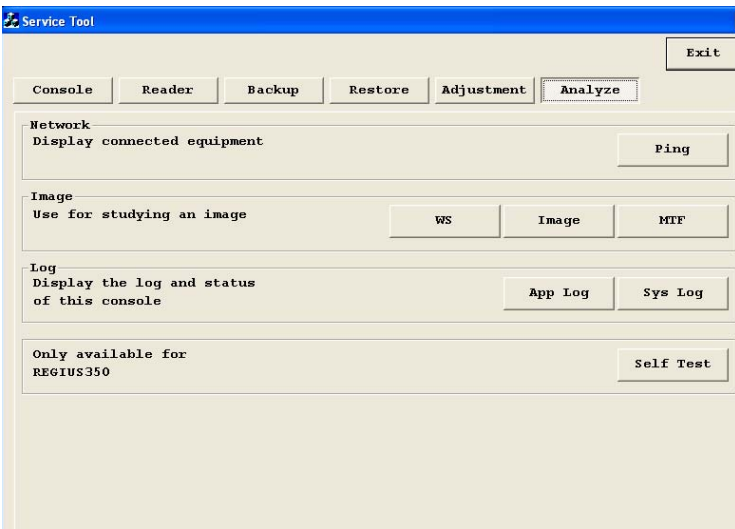
The service tool screen is a screen where all keys for starting the setting tools are classified depending on the purposes.

Service Tool Screens initiated from the REGIUS Service Screen is described below..

Service Tool Screens	Start Up Keys (● only available when activated from the REGIUS Service Screen)	Description
[Console]	[Date/Time]	13-6
	[Network]	13-7
	● [Layout]	13-8
	[System Info]	13-17
	[Job Manager]	13-35
	[Printer]	13-37
	[Host]	13-48
	[RIS]	13-59
	[Marker]	13-71
	[Stamp]	13-76
	[Exam Tag]	13-81
	[Process]	13-89
	● [Patient DB]	13-97
	● [File Import]	13-100
	License	
	● [Upgrade]	13-100
[Console] > [Layout]	● [User Display]	13-8
	● [Patient]	13-13
	● [Additional]	
	● [Routine]	
	● [Order]	13-15
	● [Portable]	
	● [History]	



[illegible]

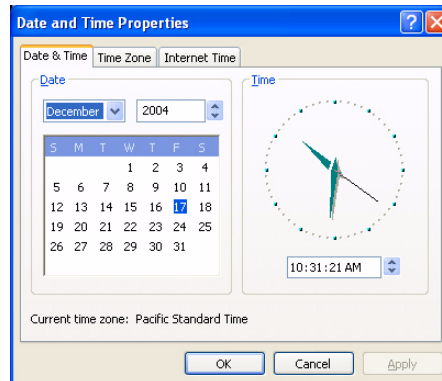
Service Tool Screens	Start Up Keys (● only available when activated from the REGIUS Service Screen)	Description
<p>[Adjustment]</p> 	[Touch Panel]	13-142
	[Brightness]	13-142
	● [Delete Image]	13-146
	● [Delete All]	13-146
	● [Configure]	13-147
	● [Backup]	13-150
	● [Restore]	13-150
	● [Log]	13-151
	● [Initialize]	13-151
<p>[Analyze]</p> 	[Ping]	13-152
	[WS]	13-161
	[Image]	13-153
	[MTF]	13-162
	[App Log]	13-163
	[Sys Log]	13-165
	● [Self Test]	13-166

13.2 [Console] > [Date/Time], [Network]

13.2.1 “Date/Time” Set Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●	Also to be able to start up from the User Tool
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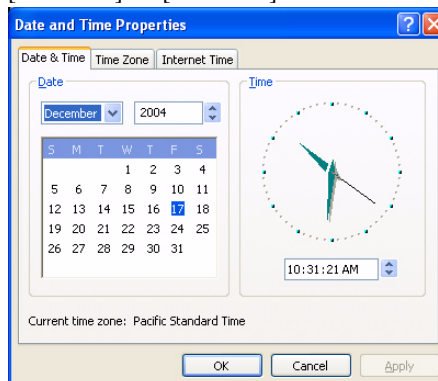
Display Procedure •••• [Console] --> [Date/Time]



Key/Item	Function
Date Set	Selecting the year and month in the upper combo box will display the calendar of the selected month in the lower box. Click the correct date, and set the date.
Time Set	Click the area to be corrected, and either input the figures using keyboard or change the time using the button located on the right of the box to change the time. The revised time will be automatically reflected to the clock in the above.
[OK]	Ascertaining the current setting, and returns to the service tool screen.
[Cancel]	Cancelling the setting, and returns to the service tool screen.
[Apply]	Makes valid the altered setting immediately. To ascertain the altered setting, click this button, then click [OK].

13.2.2 “Date/Time” Set Screen

Display Procedure •••• [Console] --> [Date/Time] --> [Date/Time] Tab



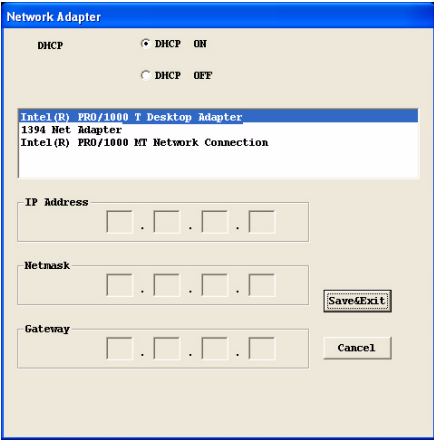
Key/Item	Function
Time Zone	Select the capital city of the install site from the list box to set the time zone.
[OK]	Saves the new setting, and returns to the service tool screen.
[Cancel]	Exit the screen without saving the new setting.
[Apply]	Makes valid the altered setting immediately. To ascertain the altered setting, click this button, then click [OK].

13.2.3 “Network Address” Set Screen

Start up from the stem menu ☐

Start up from the REGIUS Service Screen ☐

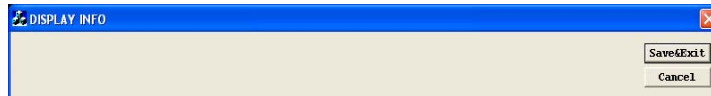
Display Procedure ••• [Console] --> [Network]



Key/Item	Function
DHCP	Select DHCP enabled or disabled.
DHCP ON	DHCP enabled. IP address of the CS-3 will be automatically set up by DHCP.
DHCP OFF	DHCP disabled. Set IP address of the CS-3 separately.
Device List	Name of the network port device is shown. Upper line for device incorporated in the CS-3, lower line for the optional device. Click to select the device name to which the IP address shall be assigned. The settings of IP address and lower input boxes change to those of the latest status of the selected device.
IP Address	When the setting is made to “DHCP OFF”, input the IP address of the CS-3.
Netmask	When the setting is made to “DHCP OFF”, input the subnet mask of the CS-3.
Gateway	When the setting is made to “DHCP OFF”, input the default gateway address of the CS-3.
[Save & Exit]	Exit the window after saving the setting.
[Cancel]	Exit the window without updating the setting.

13.3 [Console] > [Layout] > [User Display]

13.3.1 “DISPLAY INFO” Common Screen



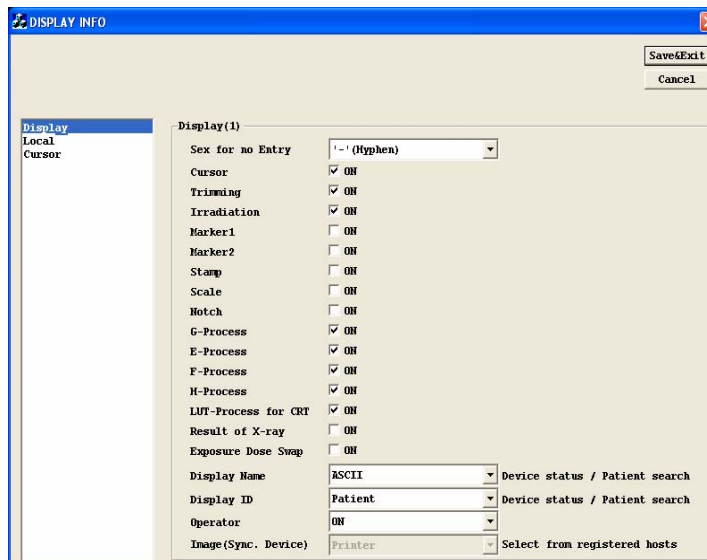
Key/Item	Function
[Save & Exit]	Click to exit from “DISPLAY INFO” screen after saving the settings.
[Cancel]	Click to exit from “DISPLAY INFO” screen without saving the settings.

13.3.2 “DISPLAY INFO• Display” Screen

<Important> In the case when the screen setting is changed, the changes will not be reflected on the CS-1/CS-3 application when the restart is initiated from [CS1] of the REGIUS Service Screen. To reflect the changes, either click [Restart] in the REGIUS Service Screen or restart the CS-1/CS-3 application on the Windows2000 desktop.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure ••••[Console] --> [Layout] --> [User Display] --> (Select [Display] in the left menu.)



Key/Item	Function
Display	
Sex for No Entry	Select the display choice from the following when there is no sex info. is contained in the patient info. “Blank” --> “-” (Hyphen)”
Cursor	Tick the check box to display the cursor of mouse on the CS-1/CS-3 application screens. (default : ON)
Trimming	Tick the items you want to display on the exam. confirmation screen simultaneously when the image is read in.
Illudiation	
Marker 1	
Marker 2	
Stamp	
Scale	
Notch	

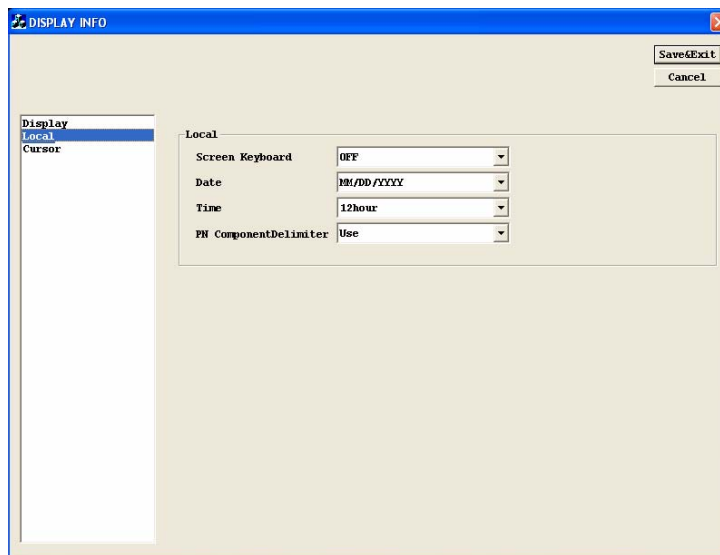
Key/Item	Function
Display	
G-Process	Tick the image processing item that should be reflected to the image data read from the exam. confirmation image.
E-Process	
F-Process	
H-Process	
Lut Process for CRT	
Result of X-ray	Check "ON" when X-ray information of exposure should be displayed.
Display Name(Routin)	Select the display type for the name column on the exam. list screen from the following. <ul style="list-style-type: none"> • ASCII only.
Display ID(Routin)	Select the display type for the ID column on the exam. list screen from the following. <ul style="list-style-type: none"> • "Patient", "Study", "Accession"
Operator	Select either to accept or not to accept the operator's name (technician) when the reservation information sent from the server in the higher level. (default : OFF) <ul style="list-style-type: none"> • "ON", "OFF"
Image (Sync. Device)	Select a device to which an exam image display should be linked when there is no printer networked to the CS-3. <ul style="list-style-type: none"> • Select one from the hosts that have been registered. • Setting is only possible when there is no printer networked.

13.3.3 “DISPLAY INFO • Local” Screen

<Important>In the case when the screen setting is changed, the changes will not be reflected on the CS-1/CS-3 application when the restart is initiated from [CS1] of the REGIUS Service Screen. To reflect the changes, either click [Restart] in the REGIUS Service Screen or restart the CS-1/CS-3 application on the Windows2000 desktop.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure • • • • [Console] --> [Layout] --> [User Display] --> (Select [Local] in the left menu.)



Key/Item	Function
Local	
Screen Keyboard	Select whether to change or not the keyboard according to the local requirement, which will be used on the “Exam Search” screen. ON • • • Change the keyboard according to the local requirement. NO • • • Do not change.
Date	Select the form of date.
PN ComponentDelimiter	Select whether to use “ ” (space) or “^” as a sparator between the elements of the patient name on the “Exam Search” and “Addition” screen.

13.3.4 “DISPLAY INFO • Cursor” Screen

<Important>In the case when the screen setting is changed, the changes will not be reflected on the CS-1/CS-3 application when the restart is initiated from [CS1] of the REGIUS Service Screen. To reflect the changes, either click [Restart] in the REGIUS Service Screen or restart the CS-1/CS-3 application on the Windows2000 desktop.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure •••[Console] --> [Layout] --> [User Display] --> (Select [Cursor] in the left menu.)

Key/Item	Function
Dest Tab of Screen	
Preexposure	Select from the following, a tab screen that the user want to show when the image area on the exam. confirmation screen is first touched.
Postexposure	
	<ul style="list-style-type: none"> • [Exam Tag], [Image Processing], [Output Format], [Overlay] • Default (Pre Exp.) : Acquisition • Default (Post Exp.) : Image Processing
REGIUS 350	
Focus Exam. Tag (Single Image)	Sets the timing of focusing when the focus resides in the exam tag with which REGIUS 350 reads the image onto the single image screen. <ul style="list-style-type: none"> • No auto control : Focus does not move to next • Start reading : Focus moves to the next right or directly below when reading started. • Complete reading : Focus moves to the next right or directly below when reading completed. • Confirm image : Focus moves to the next right or directly below when [OK] button is depressed.
Focus Exam. Tag (Multiimage)	Sets the timing of focusing when the focus resides in the exam tag with which REGIUS 350 reads the image onto the multiimage screen. <ul style="list-style-type: none"> • No auto control : Focus does not move to next • Start reading : Focus moves to the next right when reading started. • Complete reading : Focus moves to the next right when reading completed. • Confirm image : Focus moves to the next right when [OK] button is depressed.
REGIUS 170	

Key/Item	Function
Focus Exam. Tag (Single Image)	<p>Sets the timing of focusing when the focus resides in the exam tag with which REGIUS 190/170 reads the image onto the single image screen.</p> <ul style="list-style-type: none"> • No auto control : Focus does not move to next • Start reading : Focus moves to the next right or directly below when reading started. • Complete reading : Focus moves to the next right or directly below when reading completed. • Confirm image : Focus moves to the next right or directly below when [OK] button is depressed.
Focus Exam. Tag (Multiimage)	<p>Sets the timing of focusing when the focus resides in the exam tag with which REGIUS 190/170 reads the image onto the multiimage screen.</p> <ul style="list-style-type: none"> • No auto control : Focus does not move to next • Start reading : Focus moves to the next right when reading started. • Complete reading : Focus moves to the next right when reading completed. • Confirm image : Focus moves to the next right when [OK] button is depressed.
Auto Registration & Reading	<p>This setting is only valid when registration type is post exposure. When it is ON, cassette inserted and read on the REGIUS 190/170 will be assigned to the exam tag starting at the left end. (No.1 is automatically issued)</p>
Focus Barcode (Exam. Tag Scr)	<p>This setting is only valid when registration type is "Barcode (preexposure)". Sets the timing of focusing when the focus resides in the exam tag to which REGIUS 190/170 allocates the barcode in the single image screen, multiimage screen or Exam Tag Select screen.</p>
Sort of Exam. Tag	
Sort Exam. Tag	<p>Sets the sort condition of exam tags (per reader) when the screen switches to single image or multiimage screen.</p> <ul style="list-style-type: none"> • Order already on parameter screen : Sort not implemented. • 350 ->170 : Sorts the exam tags in order of 350 ->170. • 170 ->350: Sorts the exam tags in order of 170 ->350.
Other Screens	
Search the order list	<p>Tick "ON" to enable input and search of the patient ID read by the barcode reader.</p>
Digit of Patient ID	<p>Input the number of digit which will be input when the patient ID is ready using the barcode reader.</p>

13.4 [Console] > [Layout] > [Patient], [Additional], [Routine], [Reserve],[Portable],[History]

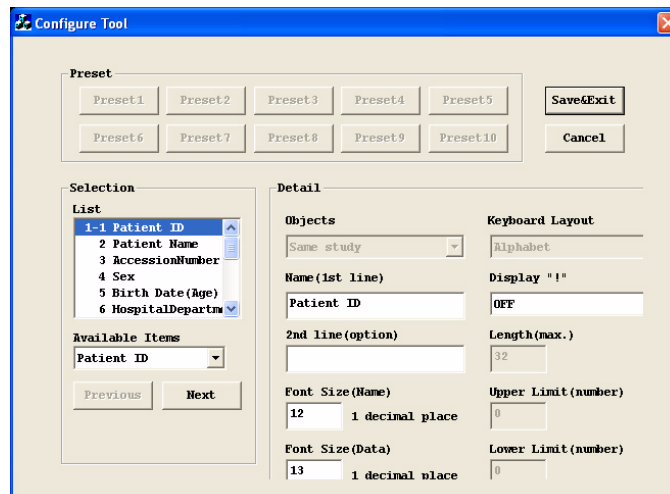
13.4.1 Configure Tool

A screen to set 3 screens, “Patient” , “Additional.” , “Routine” screens to suit to the requests of the user. The settings other than the selection items are common to each of three.

<Important>In the case when the screen setting is changed, the changes will not be reflected on the CS-1/CS-3 application when the restart is initiated from [CS1] of the REGIUS Service Screen. To reflect the changes, either click [Restart] in the REGIUS Service Screen or restart the CS-1/CS-3 application on the Windows2000 desktop.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure •••[Console] --> [Layout] --> (Select [Patient] , [Additional] , or [Routine])



Key/Item	Function
Preset Button	
[Preset 1 ~ 10]	Select the display format that has been preset on the CS-3 in advance.
Selection	Select the display format that has been preset on the CS-3 in advance.
List	Select the display position of the items. The figure on the left of the item name indicates the display page and position on the screen.
Available Items	Select the item which shall be displayed at the position selected in the “List”. <ul style="list-style-type: none"> Refer to items to be selected for [Patient], [Routine], [Additional].
[Previous]	Switch the page on which the item list is displayed.
[Next]	
Detail	Sets details of set up for the item selected in the “List”. <ul style="list-style-type: none"> The set items which have white back ground only are valid for change.
[Save & Exit]	Click to exit from “Configure Tool” screen after saving the settings.
[Cancel]	Click to exit from “Configure Tool” screen without saving the settings.

- Items to be selected for [Patient], [Routine] screens.

Selection Item List					
(Blank)	Patient ID	Accession Number	Patient Name	Sex	Birth Date/Time (Age)
Birth Date(Age)	Patient Comments	Other patient ID	Other Patient Name	Occupation	Height [m]
Weight [kg]	Nationality	Medical Alerts	Contrast Allergies	Additional History	Pregnancy
Special Needs	Patient State	Hospital Department	Residence (Ward)	Patient Location	Patient' Confidentiality

- Items to be selected for [Additional] Screen

Selection Item List					
(Blank)	Accession Number	Study ID	Other Study ID	Study Priority	Study Comments
Scheduled Study Start Date	Reason for Study	Requesting Physician	Hospital Department	Study Date	Referring Physician
Recording Physician	Physician of Reading Study	Diagnoses Description	Performing Physician	Body Part Examined	View Position
Series Number	Image Laterality	Image Date	Instance ID	Patient Orientation	Image Comments
Quality Control Image	KVP [KVP]	Exposure Time [msec]	X-ray Tube Current [mA]	Exposure [mAs]	Focal Spot [mm]
Source to Detector [mm]	Source to Patient [mm]	Contrast / Bolus Agent	C/B Route	C/B Volume [ml]	C/B Start Time
C/B Stop Time	C/B Total Dose [ml]	Contrast Flow Rate [ml/sec]	Contrast Flow Duration [sec]	C/B Ingredient	C/B Concentration [mg]
Filter Type	Filter Material	Filter Thickness Max. [mm]	Filter Thickness Min. [mm]	Grid	Grid Absorbing Material
Grid Spacing Material	Grid Thickness [mm]	Grid Pitch [mm]	Grid Focal Distance [mm]	Grid Aspect Ratio (V)	Grid Aspect Ratio (H)

13.4.2 “Study List (Column Heading)” Screen

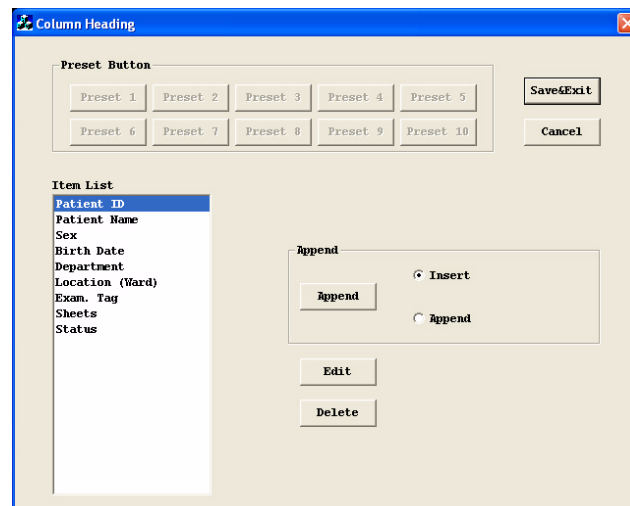
A screen to set items (columns) to be displayed on 3 screens, “Order”, “Portable”, “History” screens according to the requests of the user. Settings are common to all three screens.

<Important>In the case when the screen setting is changed, the changes will not be reflected on the CS-1/CS-3 application when the restart is initiated from [CS1] of the REGIUS Service Screen. To reflect the changes, either click [Restart] in the REGIUS Service Screen or restart the CS-1/CS-3 application on the Windows2000 desktop.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure • • • • [Console] --> [Layout] --> Select [Order] , [Portable] , or [History]

- Clicking on [Append] or [Edit.] will switches to the “Append/Edit” screen.



Key/Item	Function
Preset Button	
[Preset 1 ~ 10]	Select the display format that has been preset on the CS-3 in advance.
Item List	Displays a list of display items which are currently set. Select the item to be deleted or changed. To add an item, select whether it is added before or after the selected item.
Append	
[Append]	Add a new item in the list. <ul style="list-style-type: none"> Displays Append/Revise screen. Refer to the “List Display Selection Items” for the items available for addition.
[Append Forward]	Add the item before the selected item.
[Append Backward]	Add the item after the selected item.
[Edit]	Changes the display format of the item selected in the item list. <ul style="list-style-type: none"> Displays Append/Revise screen.
[Delete]	Deletes the item selected in the item list.
[Save&Exit]	Click to exit from “Study List (Column Title)” screen after saving the settings.
[Cancel]	Click to exit from “Study List (Column Title)” screen without saving the settings.

- “Append / Edit” Screen

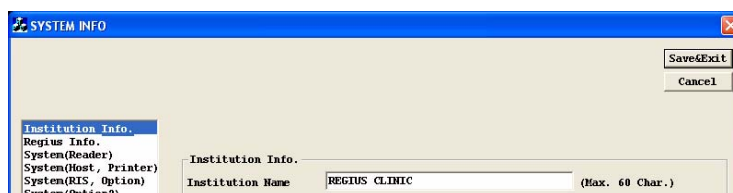
Key/Item	Function
Available Items	Select the items to be added. For correction, the items selected in the item list of “Study List (Column Title)” will be displayed.
Display Name	Input the name to be displayed in the list.
Title	
Font Size	Input the font size (point) that will be used for the title displayed in the list.
Bold	Check to change title letters to bold.
Double String	Check to change title letters to shadowed letters.
Position	Select the position of the title in the cell.
List	
Font Size	Input the font size used for the data displayed in the list
Bold	Check to change data letters to bold.
Double String	Check to change data letters to shadowed letters.
Position	Select the position of the data in the cell of the list.
Line wrap	For the character strings which is longer than the cell width, check this to break a line to start a new line.

Items for List Display

Raw Display Type Selection Item List					
Internal Number	Suspend	Guard	Exam Suspend	Study ID	Patient ID
Accession Number	Patient Name	Sex	Birth Date	Age	Patient Comments
Study Date	Registered Date	Hospital Department	Location (Ward)	Exam. Room	Alert
Exam. Tag	Exam. Status	Sheets			

13.5 [Console] > [System Info.]

13.5.1 “SYSTEM INFO” Screen

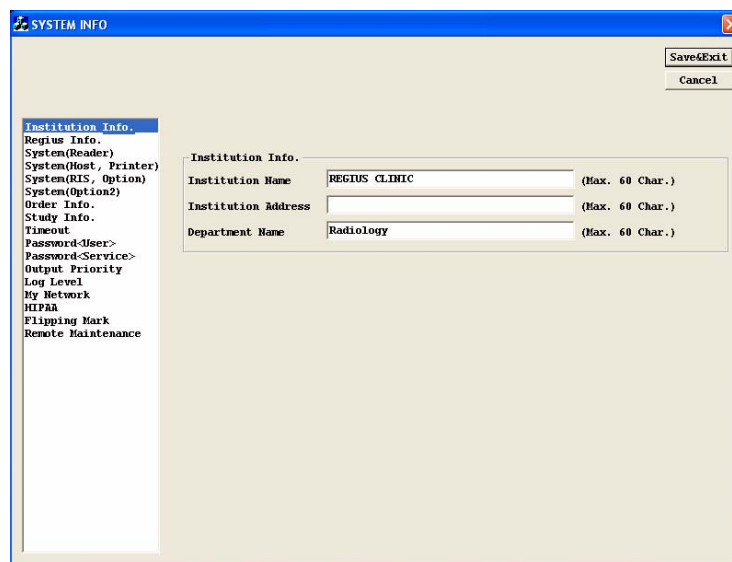


Key/Item	Function
[Save & Exit]	Click to exit from “System Info.” screen after saving the settings.
[Cancel]	Click to exit from “System info.” screen without saving the settings.

13.5.2 “SYSTEM INFO • Institution Info.” Screen

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>	Also to be able to start up from the User Tool
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Display Procedure •••[Console] --> [System Info.] --> (Select [Institution Info.] in the left menu.)



Key/Item	Function
Institution Info	Input when installed. (characters ; 2 byte x 30 / 1 byte x 60)
Institution Name	Input when installed. (characters ; 2 byte x 30 / 1 byte x 60)
Institution Address	Input when installed. (characters ; 2 byte x 30 / 1 byte x 60)
Department Name	Input when installed. (characters ; 2 byte x 30 / 1 byte x 60)

13.5.3 “SYSTEM INFO • Device Info. Set” Screen

Start up from the system menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure ••••[Console] --> [System Info.] --> (Select [Regius Info.] in the left menu.)

Key/Item	Function
System	
Manufacturer	Normally set at the factory. Use this name as a manufacturer when sending additional information to the HOST.
Model Name	Normally set at the factory.
Production Name	Set when installed.
Serial No.	Input the “Machine No.” of the warranty card when installed. <ul style="list-style-type: none"> Never input this number with “0” on the string head. For example, input “30” for the machine No. 0030. Be careful not to duplicate this number for any device in the facility.
Shipping Date	Set when installed.
Application	
Software Version	Displays the current version No. of the CS-1/CS-3 application.
Installation Date	Displays the installation date of the CS-1/CS-3 application.
Installation Time	Displays the installation time of the CS-1/CS-3 application.

13.5.4 “SYSTEM INFO • System (Reader)” Screen

Using this screen, register the reader device in the system or set the names used in the system.

Related Setting ; "13.17 [Reader] > [Reader] > “Cassette Reader”", 13-109

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure ••••[Console] --> [System Info.] --> (Select [System (Reader)] in the left menu.)

Key/Item	Function
REGIUS350	Function
REGIUS350	Check “Registered” for the reader device to be used in the system.
Model	Input the name used in the system with 1 byte x 10 characters 2 byte x 5 characters.
REGIUS 170	
Model	Input the name for specifying the several REGIUS 190/170s collectively, using 1 byte x 10 characters 2 byte x 5 characters.
Reader 1 ~ 16	Check “Registered” for the REGIUS 190/170s to be used in the system.
Model	Input the name used in the system with 1 byte x 10 characters 2 byte x 5 characters.

13.5.5 “SYSTEM INFO • System (Host, Printer)” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [System Info.] --> (Select [System Config. (Host, Printer)] in the left menu.)

SYSTEM INFO

Save&Exit
Cancel

Institution Info.
Regius Info.
System(Reader)
System(Host, Printer)
System(RIS, Option)
System(Option2)
Order Info.
Study Info.
Timeout
Password-User>
Password-Service>
Output Priority
Log Level
My Network
HIPAA
Flipping Mark
Remote Maintenance

Host

Host 1	<input checked="" type="checkbox"/> Registered	Disp. Name	HOST1	(Max. 10 char.)
Host 2	<input checked="" type="checkbox"/> Registered	Disp. Name	HOST2	(Max. 10 char.)
Host 3	<input checked="" type="checkbox"/> Registered	Disp. Name	HOST3	(Max. 10 char.)
Backup	<input checked="" type="checkbox"/> Registered	Disp. Name	HOST4	(Max. 10 char.)

Printer

Printer 1	<input type="checkbox"/> Registered	Disp. Name	PRINTER1	(Max. 10 char.)
Printer 2	<input checked="" type="checkbox"/> Registered	Disp. Name	PRINTER2	(Max. 10 char.)
Backup	<input checked="" type="checkbox"/> Registered	Disp. Name	PRINTER3	(Max. 10 char.)

Key/Item	Function
Host	
Host 1~4	Check “Registered” for 1 through 4 corresponding to the number of hosts connected. <ul style="list-style-type: none"> Host 4 is for back up.
Model	Input the host name with 1 byte x 10 characters, 2 byte x 5 characters, for the device specified as “Registered”.
Printer	
Printer 1~3	Check “Registered” for 1 through 4 corresponding to the number of printers connected. <ul style="list-style-type: none"> Host 4 is for back up.
Model	Input the printer name with 1 byte x 10 characters, 2 byte x 5 characters, for the device specified as “Registered”. <ul style="list-style-type: none"> Max. 10 x 1 byte characters.

13.5.6 “SYSTEM INFO • System (RIS, Option)” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [System Info.] --> (Select [System (RIS, Option)] in the left menu.)

SYSTEM INFO

Save&Exit
Cancel

Left Menu:
 Institution Info.
 Regius Info.
 System(Reader)
 System(Host, Printer)
System(RIS, Option)
 System(Option2)
 Order Info.
 Study Info.
 Timeout
 Password-User>
 Password-Service>
 Output Priority
 Log Level
 My Network
 HIPAA
 Flipping Mark
 Remote Maintenance

RIS (Patient/Study)

RIS1	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-IM1 (Max. 10 char.)
RIS2	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-IM2 (Max. 10 char.)

RIS (Result)

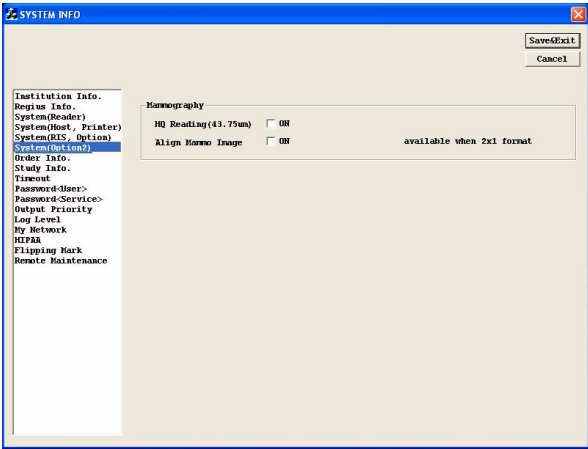
RIS1	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-OUT1 (Max. 10 char.)
RIS2	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-OUT2 (Max. 10 char.)

Portable

Portable ☐ Registered

Key/Item	Function
RIS (Patient/Study)	
RIS1, RIS2	Set the presence of RIS device from which the patient information is sent to the CS-3.
Disp. Name	Input the RIS name that is assigned to “Registered”. <ul style="list-style-type: none"> Input the name using 1 byte x 10 characters.
RIS (Result)	
RIS1, RIS2	Set the presence of RIS device to which the examination result is sent from the CS-3.
Disp. Name	Input the RIS name that is assigned to “Registered”. <ul style="list-style-type: none"> Input the name using 1 byte x 10 characters.
Portable	Select use or not to use of a portable device (option).
Portable	Set whether to use the portable device (option) or not.

13.5.7 “SYSTEM INFO • (Option 2)” Screen
Display Procedure ••••[Console] --> [System Info.] --> (Select [System (Option2)] in the left menu.)



Key/Item	Function
Mammograph	
HQ Reading (43.75μm)	Tick this box to read the image at “Mammo HQ (43.75μm)” on the REGIUS 190.
Align Mammo Image	Tick this box to automatically align the position of both breast images when two breasts are printed on a film.

13.5.8 “SYSTEM INFO • Order Info.” Screen

Start up from the system menu



Start up from the REGIUS Service Screen



Display Procedure ••••[Console] --> [System Info.] --> (Select [Order Info.] in the left menu.)

Key/Item	Function
Order	
Input Mandatory	Select the patient information that is essential in order information. <ul style="list-style-type: none"> [None], [Patient ID], [Patient Name] (default : none)
Order Auto Creation	Check “ON” if you want to use the serial number automatically issued by the CS-3 as the patient ID. (default : OFF) <ul style="list-style-type: none"> When selecting “ON”, set the format and initial count in the [Patient ID] box in the following.
Exam Tag (Default)	Set the default exam. key or not. (default : nonspecific) <p>Nonspecific ••• not to specify</p> <p>Specific ••• Specify the number for the default exam. tag.</p> <ul style="list-style-type: none"> When “Specific” is selected, click “Modify” and select the default Exam Tag key.
Default Reader*1	Displays the name of reader icon on which the default exam. tag is set.
Exam Tag Set*1 Name	Displays the name of Exam Tag (Default) key.
[Modify]*2	Select the name of Exam. Tag (Default) key. <ul style="list-style-type: none"> “Exam. Key Set” screen will be shown.
Patient ID	
Patient ID Format*3	Specify the format of the patient ID to be automatically created.
Patient ID Start*3	Modify the format of the patient ID to be automatically created.
Patient ID Length*4	Input the number of figures specified by the institute.

*1 : Contents of the display becomes effective when “Specific number” is selected by “Exam Tag (Default)” key.

*2 : Becomes effective when “Specific number” is selected by “Exam Tag (Default)” key.

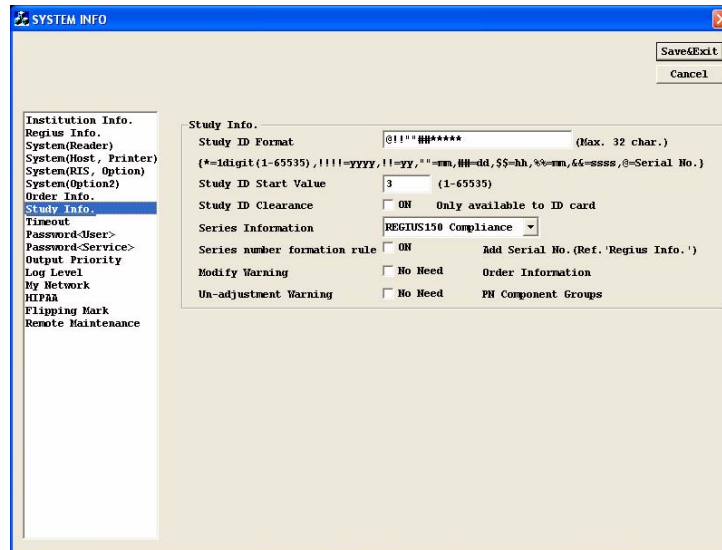
*3 : Enables input when “Order Auto-Creation” is set to “ON”.

*4 : Enables input when “Order Auto-Creation” is set to “OFF” (no check).

13.5.9 “SYSTEM INFO • Study Info.” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [System Info.] --> (Select [Study Info.] in the left menu.)



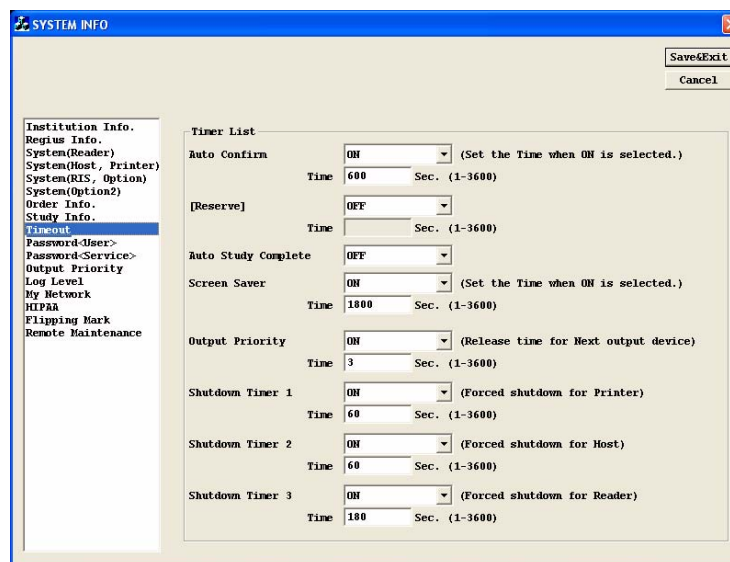
Key/Item	Function
Study Info	Function
Study ID Format	Edit the format of exam. ID. (default : *****)
	<Important>Always start with @ that indicates the machine number.
Study ID Start Value	Change the current Study ID count. (default : 1)
Study ID Clearance	Sets the condition when the ID card is used. (default : OFF) ; [OFF] ••• Add ID card information to the patient information input on the keyboard. [ON] ••• Replace by the ID card information.
Serial Info. Management	Select the subject to which the series information to be added. (default : REGIUS 150 compliance) REGIUS 150 Compliance ••• adds the information to the image to send. DICOM Compliance ••• adds the information to the examination result to send.
Add System Serial Into	Select whether to add serial No.(number set to the Regius Info. -> System -> Serial No.) to the series No. Ticking “ON” will append the serial number. ex) When the Serial No. “123”, Series No. “1” --> “12301”
Modify Warning (Read Image)	Select whether to send an alarm when patient info or additional info is changed during study (while reading the image). When it is not checked (OFF), it sends an alarm if change is made.

- Study ID will be automatically changed and issued internally. It will be overwritten when the Study ID is sent from the RIS.

13.5.10 “SYSTEM INFO • Timeout” Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●	A part of items can be changed Using the user Tool.
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Display Procedure • • • • [Console] --> [System Info.] --> (Select [Timeout] in the left menu.)



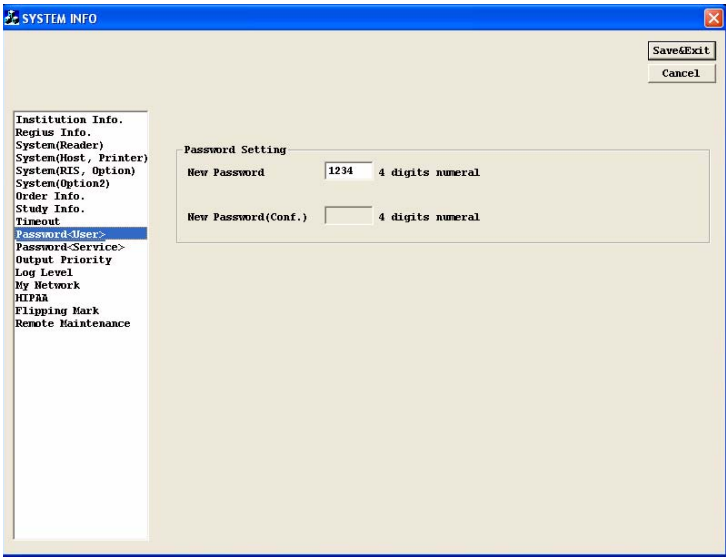
Key/Item	Function
Timer List	
Auto Confirm 1	<p>Select the timing from the following to output the image upon the user's confirmation. (default : OFF)</p> <ul style="list-style-type: none"> ON • • • After reading the image, when an specific time elapses, it deems that the image has been verified (OK), and the image is automatically output. Immediate (0 sec) • • • It deems the image has been verified (OK) as soon as the image is read, and output the image automatically. OFF • • • The image will not be output until the user touches “OK” button.
Time	Set the auto-confirmation time. (default : 20sec)
Auto Confirmation (portable)	“OFF” fixed.
Auto Confirm 2	<p>Select the operation to be initiated upon the completion of an examination, from the following.</p> <p>[OFF] • • • Press “Complete” button to exit the examination.</p> <p>[Suspend] • • • Holdback the exam, and leave the exam in the Exam List.</p> <p>[Complete] • • • Complete the exam, and delete the order from the Exam List.</p> <p>[ON] • • • Automatically completes the examination, and the screen returns to the initial scree. Cannot holdback the examination once the all exam data in the order are confirmed.</p> <ul style="list-style-type: none"> Enabled only when “Auto Confirm 1” is set to “Immediate” and “barcode Delete (Normal)” of the JobManager is set to “Portable”.
Screen Saver	<p>Select the type of screen-saving from the following. (default : OFF)</p> <p>ON • • • The screen switches to the screen saver after the time (1 ~ 7200 sec) that is input in the [Time] box has elapsed.</p> <p>OFF • • • Screen saver is disabled.</p>
Time	Set the time before the screen saver starts (default : 300sec)
Output Priority	When there are several output devices, select the duration before switching the output destination from the one currently available. Only “ON” status is available with the current version.
Time	Set the time before the output destination is changed (default : 3ec)
Shutdown Timer 1(printer)	<p>Select the waiting condition for the shutdown. When “ON” is selected, input the duration before it times out. (default : ON/60)</p> <ul style="list-style-type: none"> [ON], [OFF]

Key/Item	Function
Time	Set the time (default : 60sec) before the printer reaches time-out for printing.
Shutdown Timer 2 (host)	Select the setting of confirmation types, which will be sent to the sender (image server) for the safe storage of all data that is sent by the time the system shuts down. ON • • • Input the duration in the [Time] box before the replay is returned confirming that the data are safely saved. OFF (infinity) • • • System will not shut down until the replay comes.
Time	Set the time (default : 60sec) before the host reaches time-out for output.
Shutdown Timer 3 (reader)	Select the duration before the CS-3 closes when attempting close down of the CS-3 while the reader device is initializing. (default : ON/180) ON • • • Input the duration (1 ~ 7,200 sec) in the [Time] box to wait for the reader to transit to the power-save mode after completing the initialization. OFF (infinity) • • • The system will not close until the reader completes the initialization.
Time	Set the time (default : 180sec) before the reader reaches time-out for output.

13.5.11 “SYSTEM INFO • Password <User>” Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●	A part of items can be changed Using the user Tool.
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Display Procedure ●●●●[Console] --> [System Info.] --> (Select [Password <User>] in the left menu.)

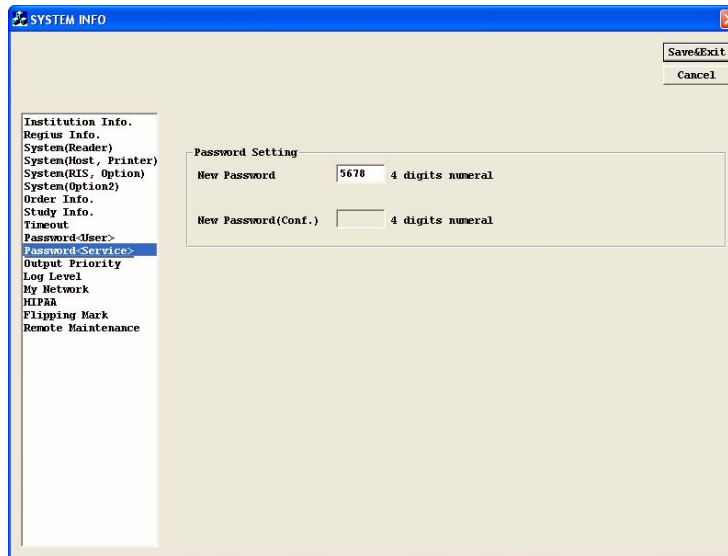


Key/Item	Function
Password	
New Password	Currently available password is shown. (default : 1234) Input the new password to change. <ul style="list-style-type: none">● Use 4 digits only.
New Password (Conf.)	Input the password identical to the one newly input in the “New Password” box so that the verification is made. <ul style="list-style-type: none">● This box become available only when clicking after the new password has been input in the “New Password” box.

13.5.12 “SYSTEM INFO • Password <Manager>” Screen

Start up from the system menu ● Start up from the REGIUS Service Screen ●

Display Procedure ●●●[Console] --> [System Info.] --> (Select [Password<Manager>] in the left menu.)

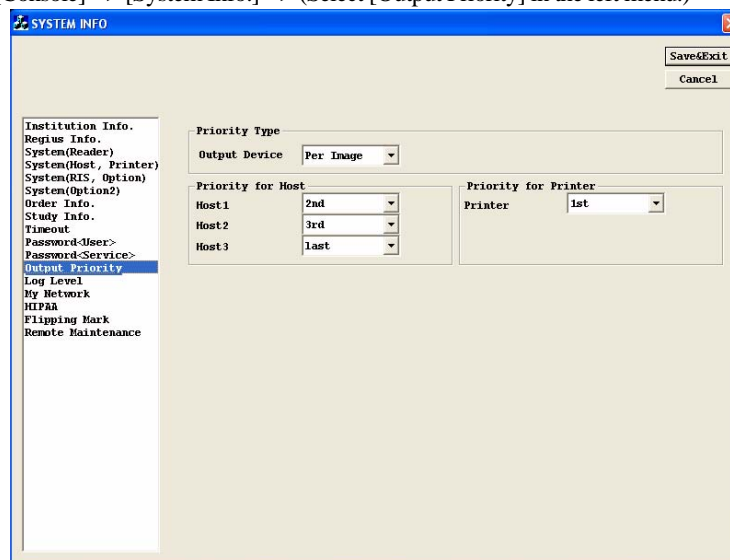


Key/Item	Function
Password	
New Password	Currently available password is shown. (default : 5678) Input the new password to change. <ul style="list-style-type: none"> Use 4 digits only.
New Password (Conf.)	Input the password identical to the one newly input in the “New Password” box so that the verification is made. <ul style="list-style-type: none"> This box become available only when clicking after the new password has been input in the “New Password” box.

13.5.13 “SYSTEM INFO • Output Priority” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [System Info.] --> (Select [Output Priority] in the left menu.)



Key/Item	Function
Priority Type	
Output Device	Select the output device to which the priority is given, and the output order among them. Type 1 • • • “No priority output device, output in order” Type 2 • • • “No priority output device, concentrated output”
Priority for Host	
Host 1 Priority Host 2 Priority Host 3 Priority	Set the output priority on each host that is registered in the system.
Priority for Printer	
Printer	Set the output priority on each printer that is registered in the system.

- See below for the print order of the type for “Priority Type” --> “Output Device”.

Type 1 :

	Printer	Host 1	Host 2
Image 1	1st	2nd	3rd
Image 2	4th	5th	6th
Image 3	7th	8th	9th

Type 2 :

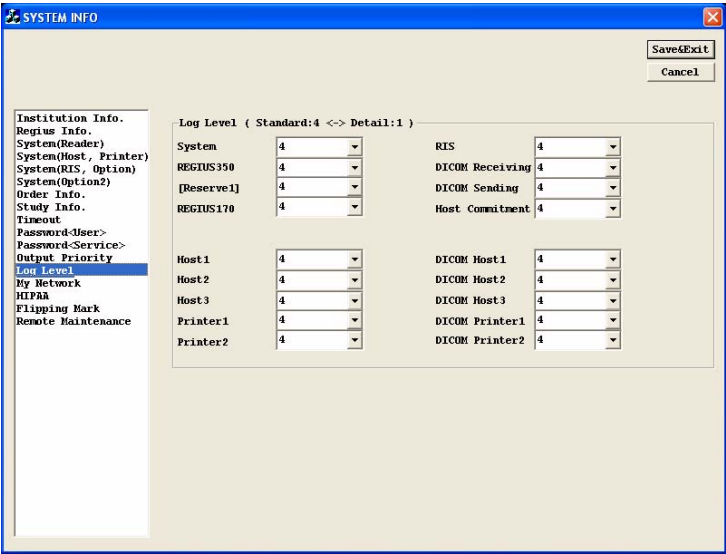
	Printer	Host 1	Host 2
Image 1	1st	4th	7th
Image 2	2nd	5th	8th
Image 3	3rd	6th	9th

13.5.14 “SYSTEM INFO • Log Level “ Screen

Start up from the system menu

Start up from the REGIUS Service Screen

Display Procedure ••••[Console] --> [System Info.] --> (Select [Log Level] in the left menu.)

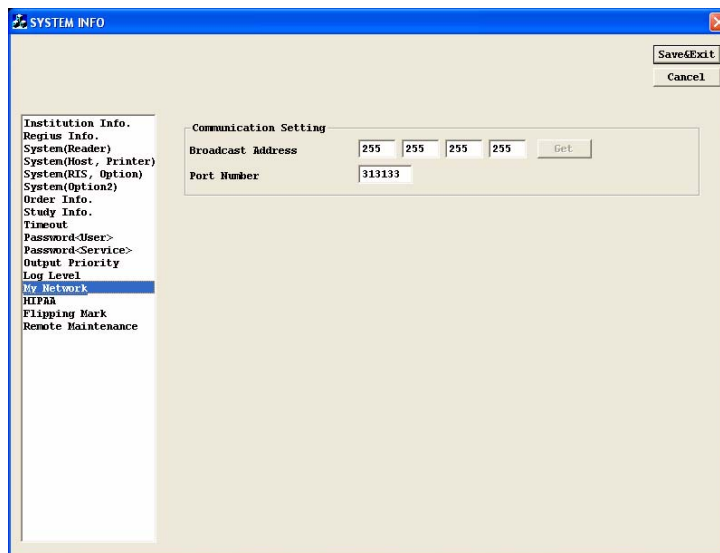


Key/Item	Function
Log Level	Set the log level to be stored in the HDD for each device. Do not change unless otherwise instructed. (default ; 4) <Important>Improper setting of log level may cause unnecessary occupation of the memory capacity of the HDD.

13.5.15 “SYSTEM INFO • CS-X Network” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [System Info.] --> (Select [CS-3 Network] in the left menu.)



Key/Item	Function
Communication Setting	
Broadcast Address	Set the address to which the JM switch over information is sent (broadcast) from one CS-3 to the other. <ul style="list-style-type: none"> Set “255.255.255.255” (fixed)
Port Number	Set the port number for broadcast. (default : 31313131 fixed) <ul style="list-style-type: none"> Do not change the default.

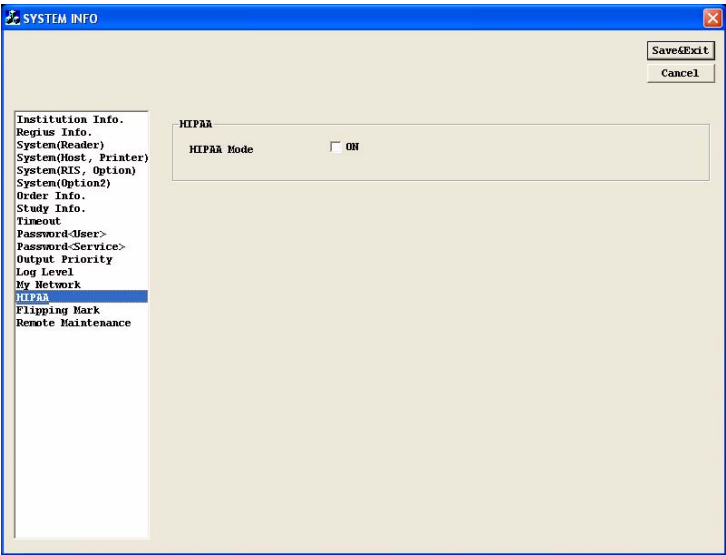
13.5.16 “SYSTEM INFO • HIPAA” Screen

Start up from the system menu

Start up from the REGIUS Service Screen

Display Procedure ●●●[Console] --> [System Info.] --> (Select [HIPAA] in the left menu.)

<Important> HIPAA logs are continuously recorded even the Log-in Manage Mode is set to “OFF”. This obviously consumes the memory space of the HDD. It is recommended to regularly delete the HIPAA logs.



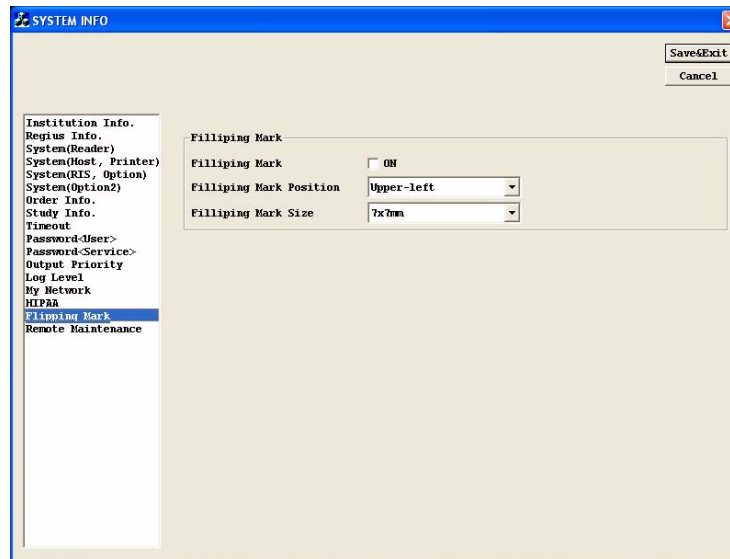
Key/Item	Function
HIPAA	
HIPAA Mode	Checking “ON” will add to the CS-1/CS-3 application a security function conforming to the HIPAA rule of the US .

13.5.17 “SYSTEM INFO • Flipping Mark” Screen

- Set whether to embed the Reverse Mark on the image. Set the position when it is embedded.

<Important> When the Reverse Mark is set to “ON”, the mark will appear on the image regardless of the output device.

Display Procedure ••••[Console] --> [System Info.] --> (Select [Reverse Mark] in the left menu.)



Key/Item	Function
Flipping Mark	
Flipping Mark ON/OFF	Select whether to embed the Reverse Mark in the output image or not. Tick the check box for [ON/OFF] for the “Reverse Mark ON/OFF”.
Flipping Mark Position	Select the position of the Reverse Mark when it is set to “ON”. <ul style="list-style-type: none"> “Upper Left”, “Upper Right”, “Lower Left”, “Lower Right”
Flipping Mark Size	Select the size of the Reverse Mark when it is set to “ON”. <ul style="list-style-type: none"> “7 x 7mm”, “10 x 10mm”

13.5.18 “SYSTEM INFO • Remote Maintenance” Screen

- Set whether to enable the remote maintenance accessed via network, and set various conditions when the remote maintenance is enabled.

Display Procedure •••[Console] --> [System Info.] --> (Select [Remote Maintenance] in the left menu.)

SYSTEM INFO

Save&Exit
Cancel

Left Menu:
 Institution Info.
 Regius Info.
 System(Reader)
 System(Host, Printer)
 System(RIS, Option)
 System(Option2)
 Order Info.
 Study Info.
 Timeout
 Password-User>
 Password-Service>
 Output Priority
 Log Level
 My Network
 HIPAA
 Flipping Mark
Remote Maintenance

Remote Maintenance
 Remote Maintenance ☐ ON
 Processing History ☐ ON
 Processing History Size 1-3000

Get Maintenance Information

Reader	Disp Name	Get Data
Reader1	190-01	<input type="checkbox"/>
Reader2	190-02	<input type="checkbox"/>
Reader3	190-03	<input type="checkbox"/>
Reader4	190-04	<input type="checkbox"/>
Reader5	190-05	<input type="checkbox"/>
Reader6	190-06	<input type="checkbox"/>
Reader7	190-07	<input type="checkbox"/>
Reader8	190-08	<input type="checkbox"/>
Reader9	190-09	<input type="checkbox"/>
Reader10	190-10	<input type="checkbox"/>
Reader11	190-11	<input type="checkbox"/>
Reader12	190-12	<input type="checkbox"/>
Reader13	190-13	<input type="checkbox"/>
Reader14	190-14	<input type="checkbox"/>
Reader15	190-15	<input type="checkbox"/>
Reader16	190-16	<input type="checkbox"/>

Key/Item	Function
Remote Maintenance	
IA Auto Start	Select whether the remote maintenance should be enabled or not. Ticking “ON” enables the remote maintenance accessing from external point.
Image Process Log Create	When “IA Auto Start” is enabled (ticking “ON”), select whether the Image Process Logs should be saved in the remote maintenance data.
Max Log Count	When “Image Process Log Create” is enabled (ticking “ON”), set the maximum count of the logs to be saved.

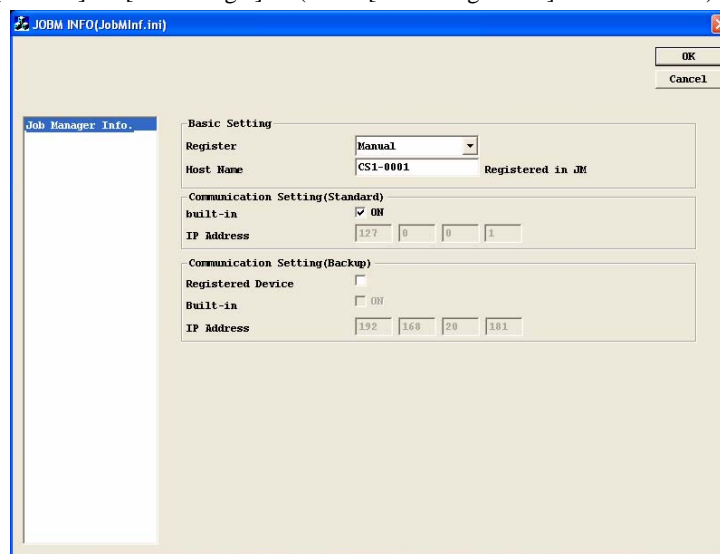
13.6 [Console] > [Job Manager]

13.6.1 “JOBM INFO • Job Manager Info” Screen

Set the properties of JM (Job Manager) which the CS-3 recognize.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [Job Manager]--> (Select [Job Manager Info.] in the left menu)



Key/Item	Function
Basic Setting	
Register	Select the cassette registration type from “Barcode” and “Manual”.
Host Name	Input the serial No. labeled on the back of the CS-3. (CS1- ****.**** means serial No.)
Communication Setting	
Job Manager (Build-in)	Check (ON) when the built-in JM (CS-3) is used.
IP Address	Input the IP address of the JM when the “Job Manager (Build-in) is OFF. <ul style="list-style-type: none"> • Default : 192.168.20.180, varies depending on the institute. • Fixed to “127.0.0.1” when it is ON.
Communication Setting (Secondary)	
Registered Device	Tick when the backup JM is to be used.
Job Manager (Build-in)	Check (ON) when the built-in JM (CS-3) is used as a backup JM.
IP Address	Input the IP address of the backup JM when the “Job Manager (Build-in) is OFF.

<Important>Setting for [Job Manager (Build-in)] and [Barcode Registered Method] is linked. [Job Manager (Build-in)] cannot be turned OFF unless the [Manual Registration] is disabled.

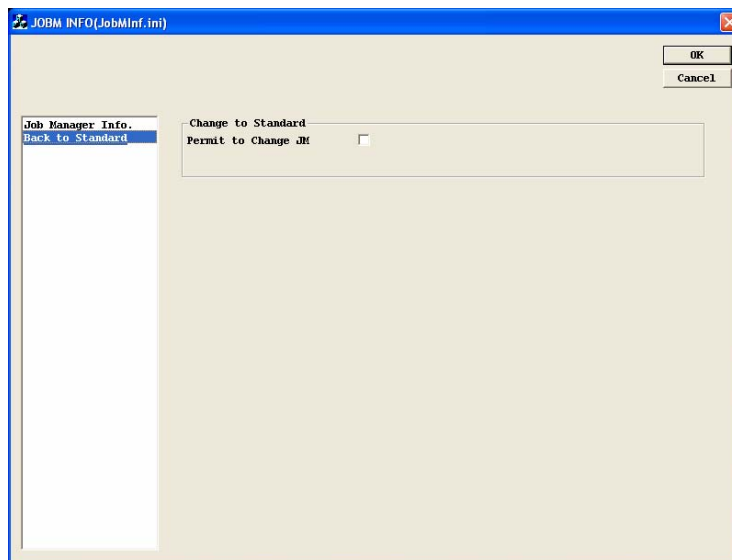
<Important>The setting of [Barcode Registered Method] should be identical to those for “sys_config” of “PostgreSQL access”.

13.6.2 “JOBM INFO • Back to Standard” Screen

This screen is displayed only when the back up JM is in operation due to failure of standard JM.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••••[Console] --> [Job Manager] --> (Select “Back to Standard” in the left column)



Key/Item	Function
Change to Standard	
Permit to Change JM	Clicking the check box enables the button on “JM-1 Status Check” screen to select the standard JM

<Important> The setting on this screen is available only once while the back up JM is operating. Once the JM is changed to the standard, this screen will not be shown.

13.7 [Console] > [Printer]

13.7.1 Common Display of “PRINTER INFO” Screen

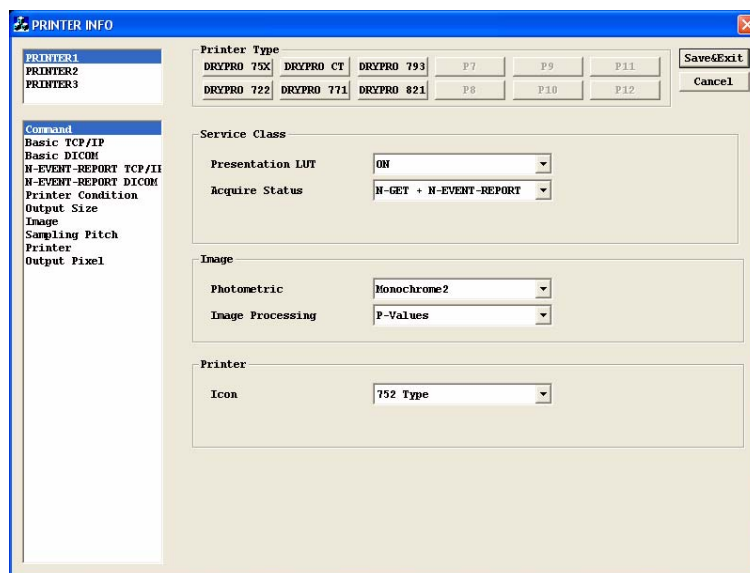


Key/Item	Function
Printer Selection (upper left menu)	Select the printer name to be set.
Printer Type	Selecting the printer that is preset in the system will facilitate the setting procedures. Variety of printer types are scheduled to be widened. <Important>When this function is to be used, select the printer type first, before starting the setting. Selecting the printer during the setting procedure will overwrite the revised setting on the preset condition.
[Save & Exit]	Click this button to exit from “PRINTER INFO” screen after saving the setting.
[Cancel]	Click this button to exit from “PRINTER INFO” screen without updating the setting.

13.7.2 “PRINTER INFO • Command” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Printer] --> (Select [Command] in the left menu.)



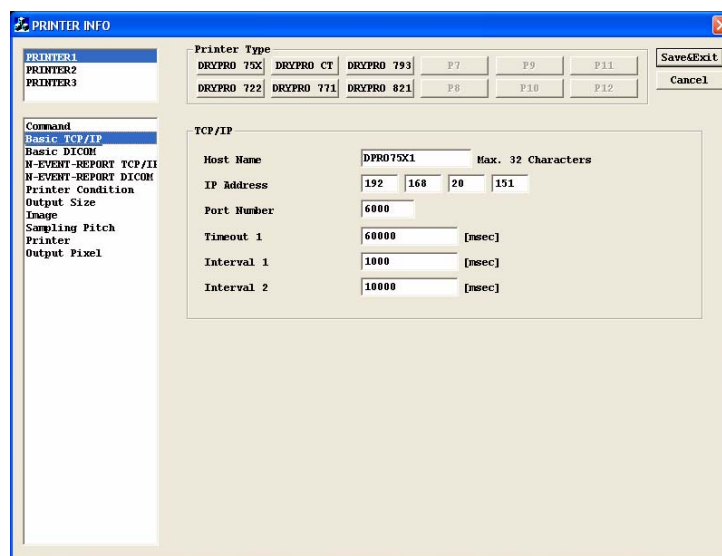
Key/Item	Function
Service Class	
Presentation LUT	Select “ON” to send the LUT for matching density between the monitor properties and printer output. (default : OFF)
Acquire Status	Select the choice of status acquisition, and the type of status from the following. (default : OFF) <ul style="list-style-type: none"> • “OFF”, “N-GET”, “N-EVENT-REPORT”, “N-GET+N-EVENT-REPORT”
Image	
Photometric	Select the measuring method of light intensity from the following. monochrome 1 • • • Sends the image with a definition “0” for black, “4095” for white. monochrome 2 • • • Sends the image with a definition “0” for white, “4095” for black. <ul style="list-style-type: none"> • Select “monochrome 1” for Konica Minolta product. (default : monochrome 1)
Printer	

Key/Item	Function
Icon	<p>Select the icon that will be displayed on the CS-1/CS-3 application. (default : 722 type)</p> <ul style="list-style-type: none"> “722 Type” : Seelct when the printer is DRYPRO MODEL 722. “752 Type” : Seelct when the printer is DRYPRO MODEL 751/752. “771 Type” : Seelct when the printer is DRYPRO MODEL 771. “793 Type” : Seelct when the printer is DRYPRO MODEL 793.

13.7.3 “PRINTER INFO • Basic TCP/IP” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [Printer] --> (Select [Basic TCP/IP] in the left menu.)



Key/Item	Function
TCP/IP	
Host Name	Input the printer used in the network using 1 byte x 32 characters.
IP Address	Input the printer's IP address.
Port Number	Input the port No.
Time Out 1	<p>Input the duration for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 60000)</p> <ul style="list-style-type: none"> Use the default when the printer is DryPro722, 751, 752.
Interval 1	<p>Input the interval (ms) of the output queues that will be sent to the printer. (default : 1000)</p> <ul style="list-style-type: none"> Use the default when the printer is DryPro722, 751, 752.
Interval 2	<p>Input the interval (ms) with which the confirmation signal for communication is sent to the printer. (default : 10000)</p> <ul style="list-style-type: none"> Use the default when the printer is DryPro722. Input “60000” when the printer is DryPro751, 752.

13.7.4 “PRINTER INFO • Basic DICOM” Screen

Start up from the system menu



Start up from the REGIUS Service Screen

**Display Procedure** •••• [Console] --> [Printer] --> (Select [Basic DICOM] in the left menu.)

Key/Item	Function
DICOM	
Transfer Syntax	<p>Select the transfer syntax from the following. Normally select the default “Implicit VR Little Endian”.</p> <p>“Implicit VR Little Endian” : Data is coded by little endian, and sent. Tag does not contain VR.</p> <p>“Explicit VR Little Endian” : Data is coded by little endian, and sent. Tag contains VR.</p> <p>“Explicit VR Big Endian” : Data is coded by big endian, and sent. Tag contains VR.</p> <p>“Reversible JPEG” : Image data is compressed by reversible JPEG.</p> <ul style="list-style-type: none"> • Normally use the default.
Printer AE-Title	Input the AE title of the printers using 1 byte x 16 alphabets.
CS-1 AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	<p>Input the maximum receipt length (0 ~ 65536). Normally input the default “65536”.</p> <ul style="list-style-type: none"> • Normally use the default.
Version Name	<p>Displays the implemented version name “KC_RS_1.00”.</p> <ul style="list-style-type: none"> • Change disabled.
UID	<p>Displays UID.</p> <ul style="list-style-type: none"> • Change disabled.
Character Set	<p>Select the character set to be used in communication from the following.</p> <ul style="list-style-type: none"> • “ASCII” • When the national language is set to other than English using “PcProgXX.XXXRX.lzh” and “System.lzh”, “Latin 1” character code becomes also available. Selecting “Latin 1” enables to send “Latin 1” character code (ü, à, ñ, etc.) to the printer. <p><Important> “Latin 1” character code can be output only when the printer is capable to accept it.</p>
Private Data	<p>Select “Send” or “Not send” for the private data transmission.</p> <p>When the destination printer is a Konica product, select “Send” (default).</p>

13.7.5 “PRINTER INFO • N-EVENT-REPORT TCP/IP” Screen

This setting will be required when “N-EVENT •••” is selected in “Status Acquisition” of "13.7.2 “PRINTER INFO • Command” Screen ", 13-37.

Start up from the system menu ☐

Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [Printer] --> (Select [N-EVENT-REPORT TCP/IP] in the left menu.)

PRINTER INFO

PRINTER1
PRINTER2
PRINTER3

Command
Basic TCP/IP
Basic DICOM
N-EVENT-REPORT TCP/IP
N-EVENT-REPORT DICOM
Printer Condition
Printer Size
Image
Sampling Pitch
Printer
Output Pixel

Printer Type
DRYPRO 75X
DRYPRO CT
DRYPRO 793
DRYPRO 722
DRYPRO 771
DRYPRO 821

F7
F8
F9
F10
F11
F12

Save&Exit
Cancel

TCP/IP

Host Name
DPRO75X1
Max. 32 Characters

IP Address
192 168 20 151

Port Number
6000

Timeout 1
60000 [msec]

Setting Value Import

Import from [Basic TCP/IP]

Import

Key/Item	Function
TCP/IP	
Host Name	Input the printer used in the network using 1 byte x 32 characters.
IP Address	Input the printer's IP address.
Port Number	Input the port No.
Timeout 1	Input the duration for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 60000) <ul style="list-style-type: none">• Use the default when the printer is DryPro722, 751, 752.
Setting Value Import	
Import	Copies the Basic TCP/IP setting, and overwrites the setting.

13.7.6 “PRINTER INFO • N-EVENT-REPORT DICOM” Screen

This setting will be required when “N-EVENT•••” is selected in “Status Acquisition” of “13.7.2 “PRINTER INFO • Command” Screen”, 13-37.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [Printer] --> (Select [N-EVENT-REPORT DICOM Setting] in the left menu.)

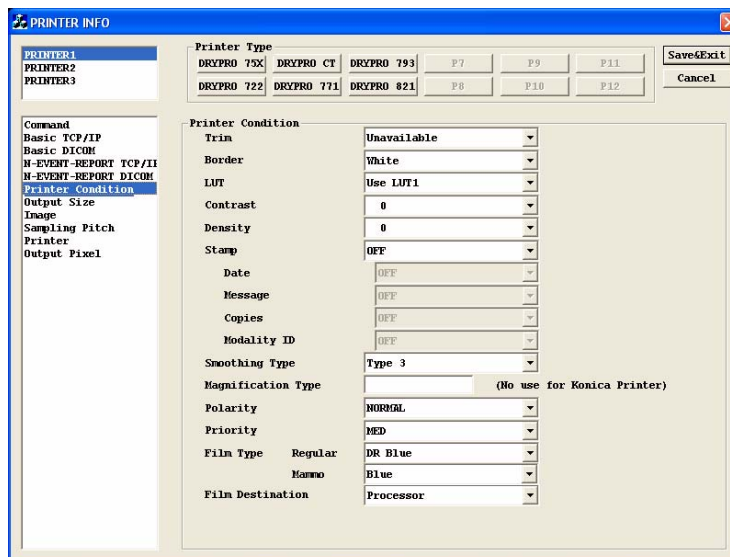
The screenshot shows the 'PRINTER INFO' dialog box. On the left, a tree view lists various settings, with 'N-EVENT-REPORT DICOM' highlighted. The main area on the right is titled 'DICOM' and contains several configuration fields: 'Transfer Syntax' is set to 'Implicit VR Little Endian'; 'Printer AE-Title' is 'KC_DPRO_P001'; 'CS-1 AE-Title' is 'KC_CSIL_U001'; 'PDU Size' is '65536'; 'Version Name' is 'KC_RS_1.00'; 'UID' is '303.0'; 'Character Set' is 'ASCII'; and 'Private Data' is 'Send'. At the top right are 'Save/Exit' and 'Cancel' buttons. At the bottom right is an 'Import' button. Below the main fields is a section labeled 'Setting Value Import' with a sub-label 'Import from [Basic DICOM]'.

Key/Item	Function
DICOM	
Transfer Syntax	Select the transfer syntax from the following. Normally select the default “Implicit VR Little Endian”. “Implicit VR Little Endian” : Data is coded by little endian, and sent. Tag does not contain VR. “Explicit VR Little Endian” : Data is coded by little endian, and sent. Tag contains VR. “Explicit VR Big Endian” : Data is coded by big endian, and sent. Tag contains VR. “JPEG Lossless” : Image data is compressed by reversible JPEG. • Normally use the default.
Printer AE-Title	Input the AE title of the printers using 1 byte x 16 alphabets.
CS-1 AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (0 ~ 65536). Normally input the default “65536”.
Version Name	Displays the implemented version name “KC_RS_1.00”. • Change disabled.
UID	Displays UID. • Change disabled.
Character Set	Select the character set to be used in communication from the following. (ASCII only) • “ASCII”
Private Data	When the destination printer is a Konica product, select “Send” (default).
Setting Value Import	
[Import]	Copies the Basic TCP/IP setting, and overwrites the setting.

13.7.7 “PRINTER INFO • Printer Condition” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Printer] --> (Select [Printer Condition] in the left menu.)



Key/Item	Function
Printer Condition	
Trim	Select “Available” to trim the image on the printer. (default : Unavailable)
Border	Select the boarder color from the following. <ul style="list-style-type: none"> • “Black”, “White”
LUT	Select the printer’s internal LUT from “LUT1” ~ “LUT7”.
Contrast	Select from “+7” ~ “-7”. (default : ±0)
Density	Select from “+7” ~ “-7”. (default : ±0)
Stamp	Select ON/OFF. (default : all OFF) When selecting “ON” for general, then select “ON/OFF” for 4 items, i.e. “Date”, “Message”, “Copies”, “Modality ID”.
Smoothing Level	Select from the following. (default : Smoothing Level 3) <ul style="list-style-type: none"> • When “Interpolation” is selected, interpolation will be implemented on the CS-3. • “Type 1” ~ “Type 5” is the smoothing levels implemented on the printer side.
Magnification Type	Input the name of magnification type using 1 byte x 16 characters.
Polarity	Select from the following. (default : NORMAL) <ul style="list-style-type: none"> • “REVERSE”, “NORMAL”
Priority	Select from the following. (default : Middle) <ul style="list-style-type: none"> • “HIGH”, “MED”, “LOW”
Film Type	Select the film type from the following. (default : blue) <ul style="list-style-type: none"> • “Blue”, “Clear”, “DR Blue”, “DR Clear”
Film Destination	Select the output destination from the following. <ul style="list-style-type: none"> • “Processor”, “Magazine”, “BIN1” ~ “BIN9”.
Illumination	Input the luminance (cd/m ²) of the viewer. (default : 2000)
Reflected Ambient Light	Input the luminance of the reflected ambient light (cd/m ²). (default : 10)

13.7.8 “PRINTER INFO • Output Size” Screen

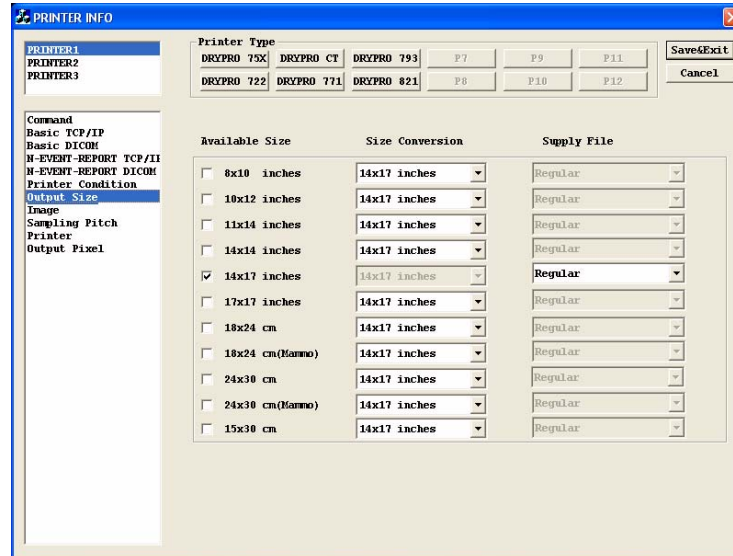
Start up from the system menu



Start up from the REGIUS Service Screen



Display Procedure • • • • [Console] --> [Printer] --> (Select [Output Size] in the left menu.)

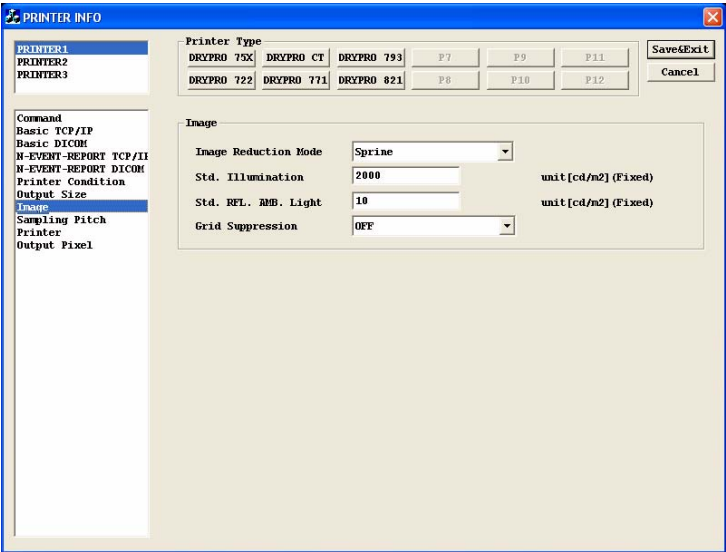


Key/Item	Function
Available Size	Check the film sizes which the printer can output.
Size Conversion	Select the film size that replace the size that is not available but requested by print queue.
Supply Film	Set the film type loaded in the tray.

13.7.9 “PRINTER INFO• Image” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure [Console] --> [Printer] --> (Select [Image] in the left menu.)

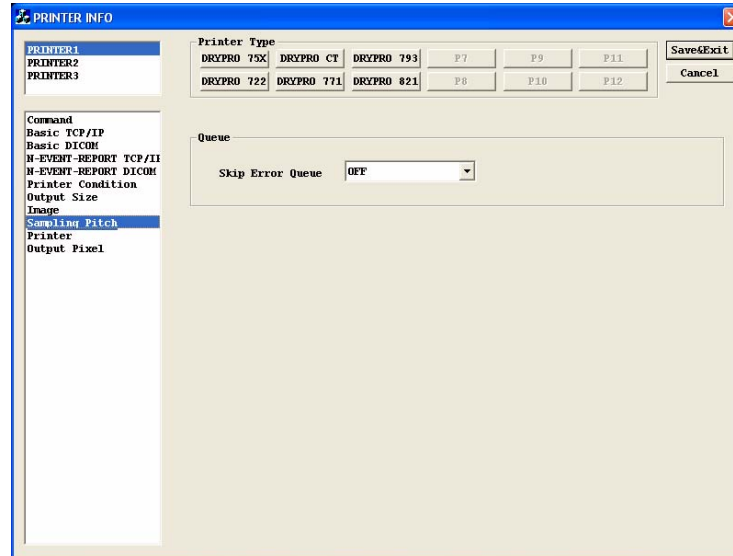


Key/Item	Function
Image	
Image Reduction Mode	Select the type of compression when sending the image data from the following. (default : spline) <ul style="list-style-type: none">• “Spline”, “Decimate / Crop”, “Bilinear”.
Std. Illumination	Luminance of hypothetical illumination that is used in “P” value conversion. Do not change the value, neither input the measured value here.
Std. RFL. AMB. Light	Luminance of hypothetical ambient light that is used in “P” value conversion. Do not change the value, neither input the measured value here.

13.7.10 “PRINTER INFO • Sampling Pitch” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Printer] --> (Select [Sampling Pitch] in the left menu.)



Key/Item	Function
Sampling Pitch	
Queue	
Skip Error Queue	Select “ON” to skip the output when there occurs an error in the output queue. (default : OFF) “ON” : Skips the queue on which an error occurred, and outputs the next queue. “OFF” : Suspends the output of queues till the error is reset.

- Setting “Skip Error Queue” to “ON” will output the next queue even in the case of “Film Empty”. This may result in irregular print order. Therefore, set this item to “OFF” in normal use.

13.7.11 “PRINTER INFO • Printer” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Printer] --> (Select [Printer] in the left menu.)

Key/Item	Function
Boundary	Input the border pixels. (default : 2)
Primary Scan Pixels	Input the main scan pixels. (default : 5120)
Multiformat	Select whether this process should be performed on the CS-3 or printers. (default : Printer) “Printer” : Printer will implement the task. “REGIUS” : CS-3 will implement the task.
Rotate	Select whether this process should be performed on the CS-3 or printers. (default : Printer) “Printer” : Printer will implement the task. “REGIUS” : CS-3 will implement the task.
Mixed Format	Select whether this process should be performed on the CS-3 or printers. (default : CS-3) “Printer” : Printer will implement the task. “REGIUS” : CS-3 will implement the task.
(Film Orientation)	Select the standard film orientation (length/side) for each film size. (default : “Portrait for all)
Frame L/R Pixels	Input the image frame pixels. (default : 0)
Frame L/R Pixels	Input the text width pixels. (default : 0)
Frame Top Pixels	Input the viewer width pixels. (default : 0)
Trim Frame Pixels	Input the trim frame pixels. (default : 0)
Border Pixels	Input the boarder pixels. (default : 29 for sampling pitch 175 and 87.5μm, 32 for 43.75, 51 for 50.025)

13.7.12 “PRINTER INFO • Output Pixel” Screen

Start up from the system menu



Start up from the REGIUS Service Screen

**Display Procedure** • • • • [Console] --> [Printer] --> (Select [Output Pixel (175) μ m] in the left menu.)

Key/Item	Function
Output Pixel	
Resolution	Select from the list box a resolution type with which the image is output. <ul style="list-style-type: none"> • “175”, “87.5”, “43.5”, “50”, “25.0” μm. • Input of output pixels can be made for each film size. However, when “Equip to Read” is selected, input of value becomes invalid. • Setting of “Output Pixels” can be made only on those film sizes whose “Film Presence” has been ticked on the “Film Setup” screen.
Output Pixel Size	Select from the list box a pixel size with which the image is output. <ul style="list-style-type: none"> • Either select from “40μm”, “78.6μm”, “43.75μm”, “Equip to Read” or input the value (μm x 100).
Width	Set the output pixels for each film size in numbers for width at manual mode.
Height	Set the output pixels for each film size in numbers for height at manual mode.

13.8 [Console] > [Host]

13.8.1 Common Settings of “HOST INFO” Screen

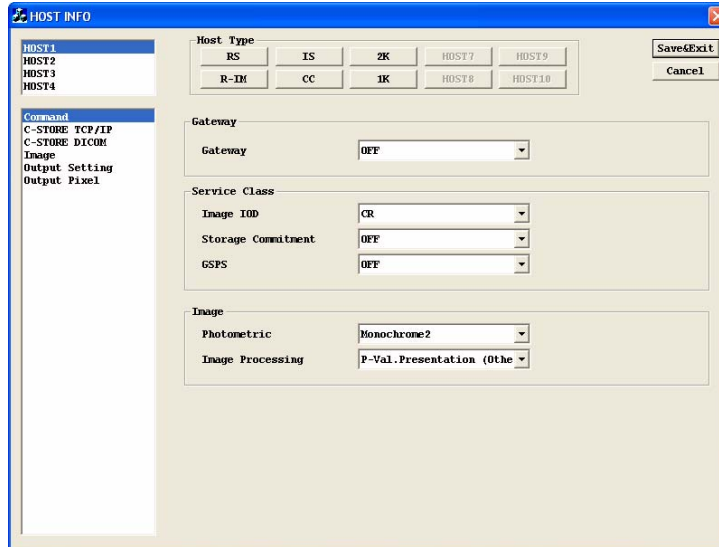


Key/Item	Function
Host Selection (upper left menu)	Select the host name to be set.
Host Type	Selecting the host that is preset in the system will facilitate the setting procedures. Variety of printer types are scheduled to be widened. <div style="text-align: center;"> <Important>When this function is to be used, select the host type first, before starting the setting. Selecting the host type during the setting procedure will overwrite the revised setting on the host condition. </div>
[Save & Exit]	Click this button to exit from the “HOST INFO” screen by saving the setting.
[Cancel]	Click this button to exit from the “HOST INFO” screen without saving the setting.

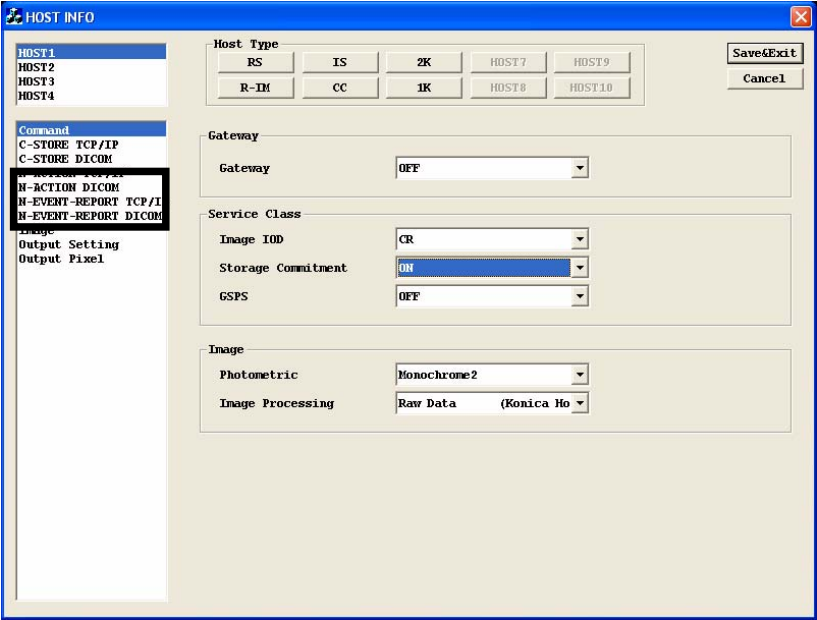
13.8.2 “HOST INFO • Command” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [Command] in the lower left menu.)



Key/Item	Function
Gateway	
Gateway	Select whether to use the gateway program (program other than DICOM) <ul style="list-style-type: none"> • OFF : Do not use the gateway program • ON : Use the gateway program
Service Class	

Key/Item	Function
Image IOD	<p>Select the image data type to be sent to the host according to the destination host. (default : CR)</p> <ul style="list-style-type: none"> • “CR”, “DX”, “DX + MG” • Select “CR” when the host is a KonicaMinolta product.
Storage Commitment	<p>Sets whether to implement the communication regarding the Storage Commitment service with the HOST.</p> <ul style="list-style-type: none"> • OFF : Do not implement the Storage Commitment service. • ON : Implement the Storage Commitment service. <p>When it is ON, new items are added in the left menu column.</p> 
GSPS	<p>Sets whether to implement the communication regarding the GSPS service with the HOST.</p> <ul style="list-style-type: none"> • OFF : Do not implement the communication. • ON : Implement the communication.
Image	
Photometric	<p>Select the measuring method of light intensity from the following.</p> <p>monochrome 1 ••• Sends the image with a definition “0” for black, “4095” for white.</p> <p>monochrome 2 ••• Sends the image with a definition “0” for white, “4095” for black.</p> <ul style="list-style-type: none"> • Select “monochrome 1” for Konica Minolta product. (default : monochrome 1)
Image Processing	<ul style="list-style-type: none"> • Raw Data (Konica Host) : Outputs Raw data + Image Processing Parameters. • Image Processed. D-value (Other Host) : Outputs the processed image data in density value. This is to maintain compatibility with older version. • Image Processed. P-value (Other Host) : Outputs the processed image data in value that is visually linear. • Set to “Image Processed. P-value (Other Host) “ for connection to the third party’s device.

13.8.3 “HOST INFO • C-STORE TCP/IP” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Printer] --> (Select [C-STORE TCP/IP] in the lower left menu.)

Key/Item	Function
TCP/IP	
Host Name	Input the host name used in the network using 1 byte x 32 characters.
IP Address	Input the host's IP address.
Port Number	Input the port No of the host.
Timeout 1	Input the duration for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 60000)
Interval 1	Input the interval (msec) for the output queue that is sent to the host. (default : 1000)

13.8.4 “HOST INFO • C-STORE DICOM” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [C-STORE DICOM] in the lower left menu.)

Key/Item	Function
DICOM	
Transfer Syntax	Select the transfer syntax from the following. (default “Implicit VR Little Endian”) <ul style="list-style-type: none"> “Implicit VR Little Endian” : Data is coded by little endian, and sent. Tag does not contain VR. “Explicit VR Little Endian” : Data is coded by little endian, and sent. Tag contains VR. “Explicit VR Big Endian” : Data is coded by big endian, and sent. Tag contains VR. “Reversible JPEG” : Image data is compressed by reversible JPEG.
HOST AE-Title	Input the AE title of the Hosts using 1 byte x 16 alphabets.
REGIUS AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (0 ~ 65536). Normally input the default “65536”.
Version Name	Displays the implemented version name “KC_RS_1.00”. <ul style="list-style-type: none"> Change disabled.
UID	Displays UID. <ul style="list-style-type: none"> Change disabled.
Character Set	Select the character set to be used in communication from the following. <ul style="list-style-type: none"> “ASCII” “Latin1”
Private Data	Selects “Send” or “Not send” for private data transmission. <ul style="list-style-type: none"> When the destination Host is a Konica product, select “Send” (default).
Dataset Extension	OFF : normal <ul style="list-style-type: none"> When the “Service Class” of the RIS is set to “MWM”, setting this to [ON] will output the additional dataset to the host. Refer to “Additional Dataset” in the next page.
VR Check	Checks whether the data complies with DICOM. If it does not comply, prohibit it from being sent. (default : OFF)

- Additional Dataset

0040.1001: Requested procedure ID (Requested procedure ID)
 0040.0009: Reserved procedure step ID (Reserved procedure step ID)
 0040.0007: Reserved procedure step description (Reserved procedure step description)
 0040.0008: Reserved execution item code sequence (Reserved execution item code sequence)
 0040.0253: Executed procedure step ID (Exam ID)
 0040.0244: Executed procedure step start data (Exam start date)
 0040.0245: Executed procedure step start time (Exam start time)
 0040.0254: Executed procedure step descriptor (Reserved procedure step description)
 0040.0260: Executed execution item code sequence (Reserved execution item code sequence)

13.8.5 “HOST INFO • N-ACTION TCP/IP” Screen

This setting is required when “Storage Commitment1” is selected in “SOP Class” of "13.8.2 “HOST INFO • Command” Screen ", 13-48.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure ••• [Console] --> [Host] --> (Select [N-ACTION TCP/IP] in the lower left menu.)

Key/Item	Function
TCP/IP	
Host Name	Input the host used in the network using 1 byte x 32 characters.
IP Address	Input the host's IP address.
Port Number	Input the port No.
Timeout 1	Input the duration for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 60000)
Timeout 2	(default : 3600000)
Interval1	Input the interval (ms) between the queues which are sent to the host. (default : 1000)
Setting Value Import	
[Import]	Copies the “Storage TCP/IP” setting, and overwrites.

13.8.6 “HOST INFO • N-ACTION DICOM” Screen

This setting is required when “Storage Commitment1” or “Storage Commitment” is selected in “SOP Class” of "13.8.2 “HOST INFO • Command” Screen ", 13-48.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [N-ACTION DICOM] in the lower left menu.)

Key/Item	Function
DICOM	
Transfer Syntax	Select the transfer syntax from the following. (default “Implicit VR Little Endian”) <ul style="list-style-type: none"> “Implicit VR Little Endian” : Data is coded by little endian, and sent. Tag does not contain VR. “Explicit VR Little Endian” : Data is coded by little endian, and sent. Tag contains VR. “Explicit VR Big Endian” : Data is coded by big endian, and sent. Tag contains VR. “Reversible JPEG” : Image data is compressed by reversible JPEG.
Host AE-Title	Input the AE title of the host using 1 byte x 16 alphabets.
REGIUS AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (default : 65536). <ul style="list-style-type: none"> Use the default as it is.
Version Name	Displays the implemented version name “KC_RGUS_1.00”. <ul style="list-style-type: none"> Change disabled.
UID	Displays UID. <ul style="list-style-type: none"> Change disabled.
Character Set	Select the character set to be used in communication from the following. (ASCII only) <ul style="list-style-type: none"> “ASCII” “Latin1”
Private Data	Select Yes/No of private data transmission. (default : “Send”) <ul style="list-style-type: none"> When the destination printer is a Konica product, select “Send”
Setting Value Import	
[Import]	Copies “Storage DICOM” setting, and overwrites.

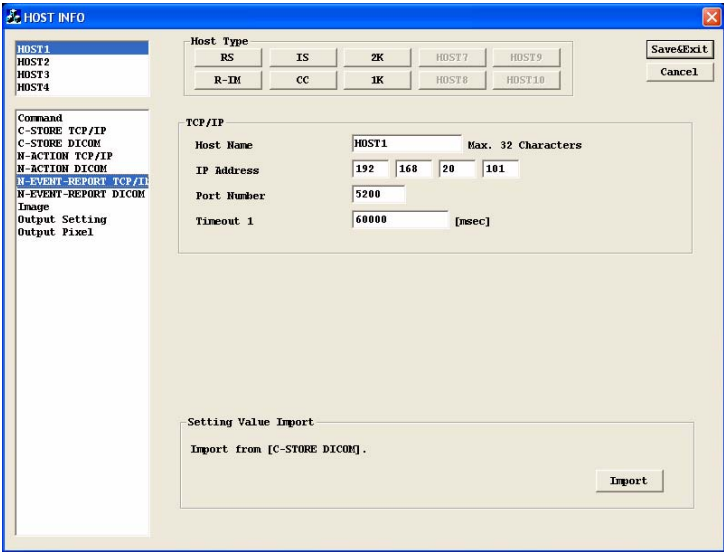
13.8.7 “HOST INFO • N-EVENT-REPORT TCP/IP” Screen

This setting is required when “Storage Commitment” is selected in “SOP Class” (p.174) of "13.8.2 “HOST INFO • Command” Screen ", 13-48.

Start up from the system menu ☐

Start up from the REGIUS Service Screen ☐

Display Procedure [Console] --> [Host] --> (Select [Storage Commitment2-T] in the lower left menu.)



Key/Item	Function
TCP/IP	
Host Name	Input the host used in the network using 1 byte x 32 characters.
IP Address	Input the host's IP address.
Port Number	Input the port No.
Timeout 1	Input the duration before the confirmation for safe receipt of image data from CS-3 is sent . (default : 60000)
Setting Value Import	
[Import]	Copies “C-STORE TCP/IP” setting, and overwrites.

13.8.8 “HOST INFO • N-EVENT-REPORT DICOM” Screen

This setting is required when “Storage+Storage Commitment” is selected in “SOP Class” of "13.8.2 “HOST INFO • Command” Screen ", 13-48.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [N-EVENT-REPORT DICOM] in the lower left menu.)

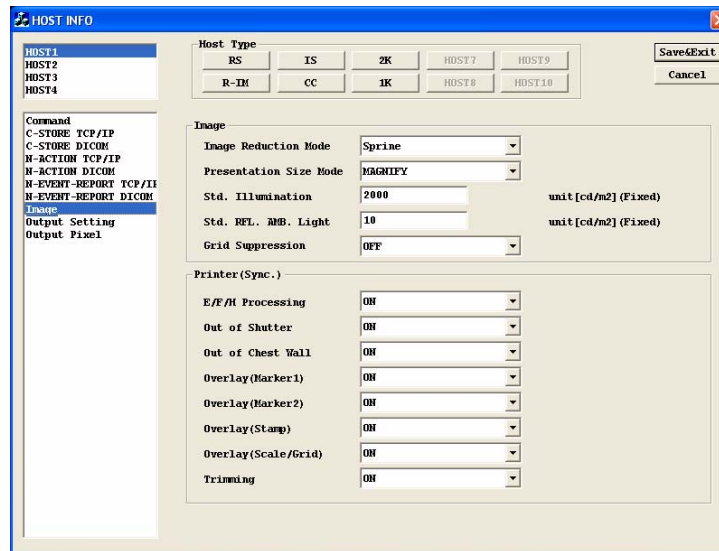
Key/Item	Function
DICOM	
Transfer Syntax	Select the transfer syntax from the following. (default “Implicit VR Little Endian”) <ul style="list-style-type: none"> “Implicit VR Little Endian” : Data is coded by little endian, and sent. Tag does not contain VR. “Explicit VR Little Endian” : Data is coded by little endian, and sent. Tag contains VR. “Explicit VR Big Endian” : Data is coded by big endian, and sent. Tag contains VR. “Reversible JPEG” : Image data is compressed by reversible JPEG.
HOST AE-Title	Input the AE title of the host using 1 byte x 16 alphabets.
REGIUS AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (default :65536). <ul style="list-style-type: none"> Use the default value as it is.
Version Name	Displays the implemented version name “KC_RGUS_1.00”. <ul style="list-style-type: none"> Change disabled.
UID	Displays UID. <ul style="list-style-type: none"> Change disabled.
Character Set	Select the character set to be used in communication from the following. <ul style="list-style-type: none"> “ASCII” “Latin1”
Private Data	Select whether to send or not to send the private data. (default : Send) When the destination printer is a Konica product, select “Send” (default).
Setting Value Import	
[Import]	Copies the “C-STORE DICOM” setting, and overwrites.

13.8.9 “HOST INFO • Image” Screen

Set the definition for the edition of the image to be sent according to the destination host.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [Image] in the lower left menu.)

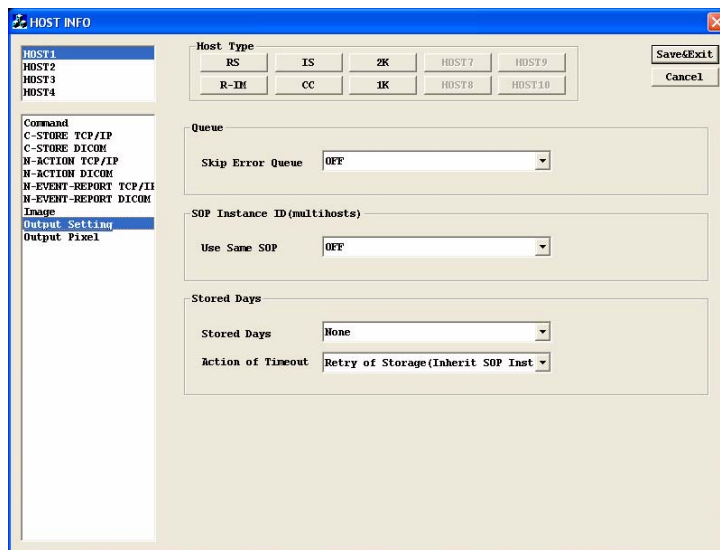


Key/Item	Function
Image	
Image Reduction Mode	Select the type of compression when sending the image data from the following. (default : spline) <ul style="list-style-type: none"> “Spline”, “Decimate / Crop”, “Bilinear”. If the default (Spline) causes problem, follow the instruction from the manufacturer, and change the setting.
Presentation Size Mode	Display method requested to the HOST. <ul style="list-style-type: none"> MAGNIFY : Displays by magnifying. (100%) SCALE TO FIT : Displays the image as large as possible to fit to the display area. TRUE SIZE : Displays the image at the same size (mm) as read.
Std. Illumination	Luminance of hypothetical illumination that is used in “P” value conversion. Do not change the value, neither input the measured value here.
Std. RFL. AMB. Light	Luminance of hypothetical ambient light that is used in “P” value conversion. Do not change the value, neither input the measured value here.
Printer (Sync.)	
E/F/H Processing	Reflects the print condition(image processing, overlay, etc.) that is set on “Detail Setting” screen to the output to the HOST. Select “ON” when outputting the same contents as used for printer to the HOST . (default : ON for “E/F/H Processing, “Masking (Out of Shutter)”, “Masking (Side of Chest)”, OFF for the rest)
Out of Shutter	
Out of Chest Wall	
Overlay (Marker1)	
Overlay (Marker2)	
Overlay (Stamp)	
Overlay (Scale/Grid)	

13.8.10 “HOST INFO • Output Setting” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [Host] --> (Select [Output Setting] in the lower left menu.)



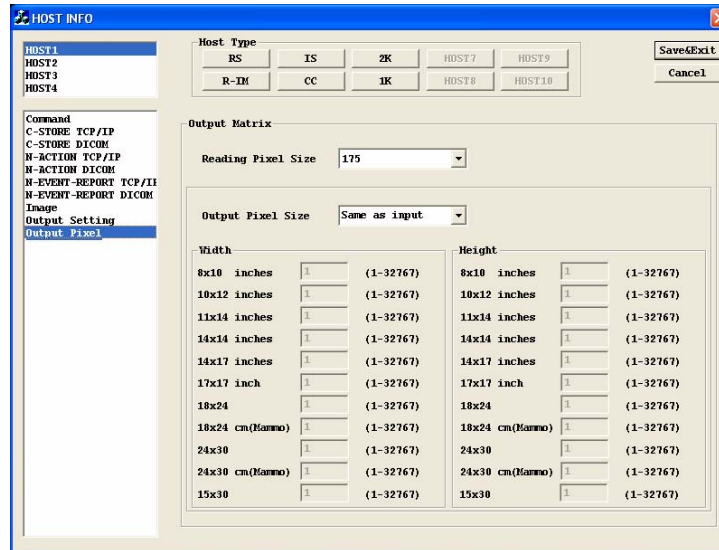
Key/Item	Function
Queue	
Skip Error Queue	Set the reaction when an error occurs in output. (default : OFF) <ul style="list-style-type: none"> ON : Skip the output queue which sent an error, and output the next queue. OFF : Suspend the output until the error is corrected.
SOP Instance ID (Multihosts)	
Storage Comitment	
Stored Days	Setting will vary depending on the host. Follow the instruction.
Action of Timeout	

- Setting “Skip Error Queue” to “ON”, it skips the image that cannot be output due to abnormality of additional information, etc., and output the next image.

13.8.11 “HOST INFO • Output Pixel” Screen

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

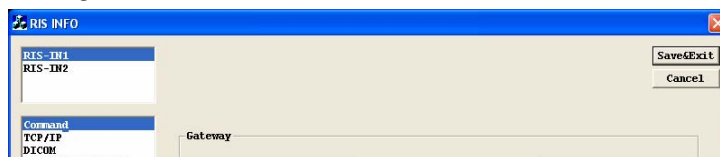
Display Procedure • • • • [Console] --> [Host] --> (Select [Output Setting] in the lower left menu.)



Key/Item	Function
Output Pixel	
Resolution	Select from the list box a resolution type with which the image is output. <ul style="list-style-type: none"> “175”, “87.5”, “43.5”, “50”, “25.0” μm.
Output Pixel Size	Select from the list box a pixel size with which the image is output. <ul style="list-style-type: none"> Either select from “40μm”, “78.6μm”, “Equiv to Read” or input the value (μm x 100).
Width	Set the output pixels for each film size in numbers for width at manual mode.
Height	Set the output pixels for each film size in numbers for height at manual mode.

13.9 [Console] > [RIS]

13.9.1 Common Settings of “RIS INFO” Screen

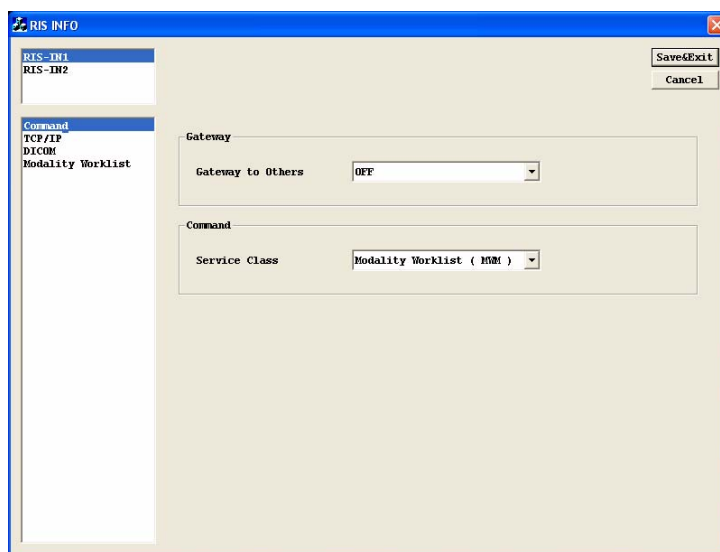


Key/Item	Function
RIS Selection (upper right menu)	Select the RIS name to be set. Related Settings;
[Save & Exit]	Exit from the “RIS INFO” screen after saving the setting.
[Cancel]	Exit from the “RIS INFO” screen without saving the setting.

13.9.2 “RIS INFO • Command” Screen

Start up from the system menu ☒ Start up from the REGIUS Service Screen ☒

Display Procedure • • • • [Console] --> [RIS] --> "Patient/Study" --> (Select [Command] in the lower left menu.)



Key/Item	Function
Gateway	
Gateway to Others	Select whether to use the gateway program (program other than DICOM). <ul style="list-style-type: none"> • OFF : Do not use the gateway program. • ON : Use the gateway program. • Dr. View : Use the gateway exclusive for Dr. View/RIS (Asahi Kasei Informations Systems)
Command	

Key/Item	Function
Service Class	<p>Select the DICOM Service class to be used.</p> <p>Setting affects the gateway program when Gateway to Others is set to “ON” or “Dr. View” is selected.</p> <ul style="list-style-type: none">• Detached • • • Uses the “DICOM Detached”.• MWM) • • • Uses the “DICOM MWM”.• When “Gateway to Others” is set to “ON” or “Dr. View”, Service Class should be set in relation to the Gateway program.• Depending on the selection, the menu in the left column changes. The above screen is the case when “Detached” is selected. When “MWM” is selected, “Detached” changes to “MWM”.

13.9.3 “RIS INFO • TCP/IP” Screen (Patient/Study)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [RIS] --> "Patient/Study" --> (Select [TCP/IP] in the lower left menu.)

Key/Item	Function
TCP/IP	
Host Name	Input the RIS name from which the patient information is sent to the CS-3 using 1 byte x 32 characters.
IP Address	Input the RIS's IP address from which the patient information is sent to the CS-3.
Port Number	Input the RIS's port No. from which the patient information is sent to the CS-3.
Timeout 1	Input the duration (ms) for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 30000)
Timeout 2	Among the settings of time-out of duration before the RIS replies to the data request sent from CS-3, this particularly set the time-out(ms) before the CS-3 receives the patient/examination data from RIS. (default : 30000) <ul style="list-style-type: none"> Only valid when the "Service Class" is set to "MWM".
Interval 1	Input the search interval (ms) in number. (default : 1000) <ul style="list-style-type: none"> Valid when "MWM" is selected in "Service Class" of "Command".

13.9.4 “RIS INFO • DICOM” Screen (Patient/Study)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [RIS] --> “Patient/Study” --> (Select [DICOM] in the lower left menu.)

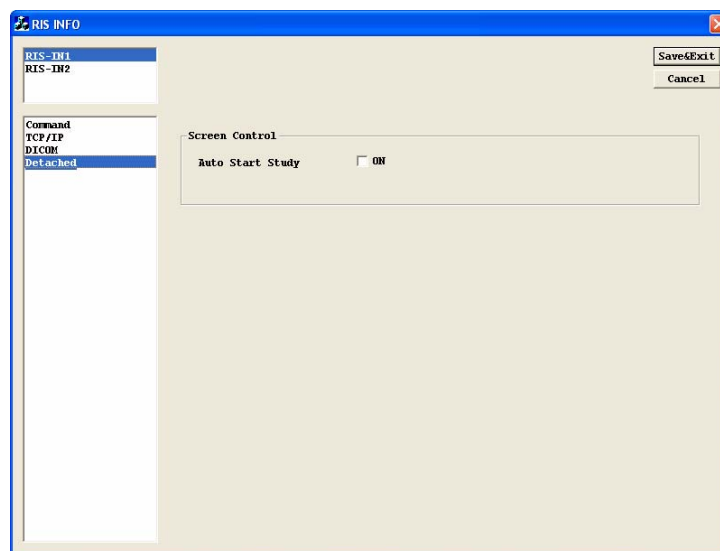
Key/Item	Function
DICOM	
Transfer Syntax	When “MWM” is set for “Command” of “Service Class” : Select “Transfer Syntac” (with current software version, only “Implicit VR Little Endian” is available.) <ul style="list-style-type: none"> When “Detached” is set for “Command” of “Service Class” : Fixed to “Implicit VR Little Endian”.
RIS AE-Title	Input the AE title of the RIS using 1 byte x 16 alphabets.
REGIUS AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (0 ~ 65536). Normally input the default “65536”.
Version Name	Displays the implemented version name “KC_REGIUS_1.00”. <ul style="list-style-type: none"> Change disabled.
UID	Displays UID. <ul style="list-style-type: none"> Change disabled.
Character Set	When “Service Class” of “Command” is set at “MWM”, select the character set from the following; <ul style="list-style-type: none"> •“ASCII” (fixed) •”Latin1” “Latin 1” • Change disabled when “Service Class” of “Command” is set to [Detached].

13.9.5 “RIS INFO • Detached” Screen

This setting is required when “Detached” is selected in “Service Class” of "13.9.2 “RIS INFO • Command” Screen", 13-59.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☒

Display Procedure • • • • [Console] --> [RIS] --> “Patient/Study” -->(Select [Detached] in the lower left menu.)



Key/Item	Function
Screen Control	
Auto Start Study	Sets whether to automatically start the study when receiving the order on the initial screen (Single image screen, multiimage screen). ON : Automatically start the study.

13.9.6 “RIS INFO • MWM” Screen

This setting is required when “MWM” is selected in “Service Class” of "13.9.2 “RIS INFO • Command” Screen", 13-59.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

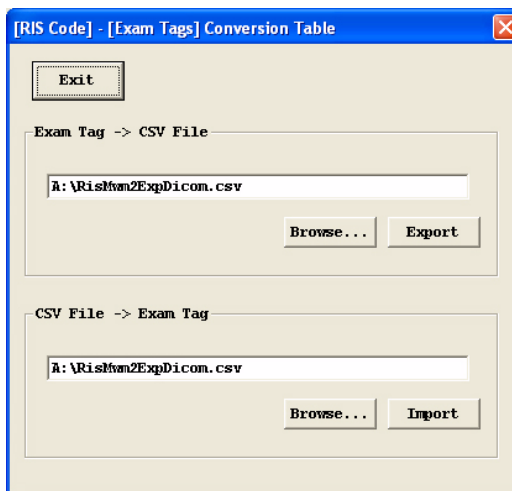
Display Procedure •••• [Console] --> [RIS] --> “Patient/Study” -->(Select [Modality Worklist] in the lower left menu.)

Key/Item	Function
Search	
Trigger	Select the timing for the CS-3 to search the patient information. (default : Search) “Search” ••• Search will start when the user touches [Search] on the CS-1/CS-3 application. “Search + Get List” ••• In addition to “Search” mode described above, search will start when “Update List” is touched, and automatically starts searching with a specific interval (polling).
Property (Get List)	Specifies the search condition by AE title.
Scope of Searching	Set the scope of searching for patient information, which is manually implemented on the CS-3. (default : Not Specified ~ Not Specified) <ul style="list-style-type: none"> This becomes valid only when the date/time for study data is set on the RIS side.
Station AE Title	Input the AE title which the RIS server uses to discriminate the CS-3.
Property (search)	Specifies the search condition by date & time and AE title for auto-search.
Scope of Searching	Set the scope of searching for patient information, which is automatically implemented on the CS-3. (default : Not Specified ~ Not Specified) <ul style="list-style-type: none"> This becomes valid only when the date/time for study data is set on the RIS side.
Station AE Title	Input the AE title which the RIS server uses to discriminate the CS-3.
Exam Tag	
Convert Table	Select the exposure condition code that shall be sent from the RIS. (default : DICOM) “DICOM (1 to 1)” ••• Code set & value “JJ1017 (3 to 1)” ••• JJ1017 Code (Method + Orientation + Body Parts) <ul style="list-style-type: none"> When the RIS is using IDS, always select “DICOM”.
Convert Source Code	Select the code type with which the CS-3 convert the exposure conditions into the exam. keys. “Scheduled Code” ••• Selects the scheduled item code to be executed. “Req. ID/Description” ••• Selects the requested ID/Description code. “Req. Code” ••• Selects USA standard method. <ul style="list-style-type: none"> When the RIS is using IDS, always select “Scheduled Code”.
Ignore 1st Value	Checking “ON” will neglect the 1st row of the conversion table when the exposure condition is converted into exam. tag on the CS-3. <ul style="list-style-type: none"> When the RIS is using IDS, always select “OFF”.

Key/Item	Function
Ignore 2nd Value	Checking “ON” will neglect the 2nd row of the conversion table when the exposure condition is converted into exam. tag on the CS-3. <ul style="list-style-type: none"> When the RIS is using IDS, always select “OFF”.
Division Character	Specify the separator character when converting exposure condition to the exam tag. <ul style="list-style-type: none"> “γ”(available in the past as well) or “Tab” can be selected.
[Excel File]	Reads or writes in Excel format, the correspondence table (conversion table) to search the code used in the RIS from the body part or exam. tag used on the CS-3. <ul style="list-style-type: none"> Opens “Body parts - Exam Tag Conversion” screen.
Study Unit	
Allow UID duplication	<ul style="list-style-type: none"> Check “ON” to handle the examination as separate when different exam. reservations are made under the same exam. instance UID.

13.9.7 “[RIS Code] - [Exam Tags] Conversion” Screen

Click [Excel File] on "13.9.6 “RIS INFO • MWM” Screen", 13-64 to open “[RIS Code] - [Exam Tags] Conversion” screen.

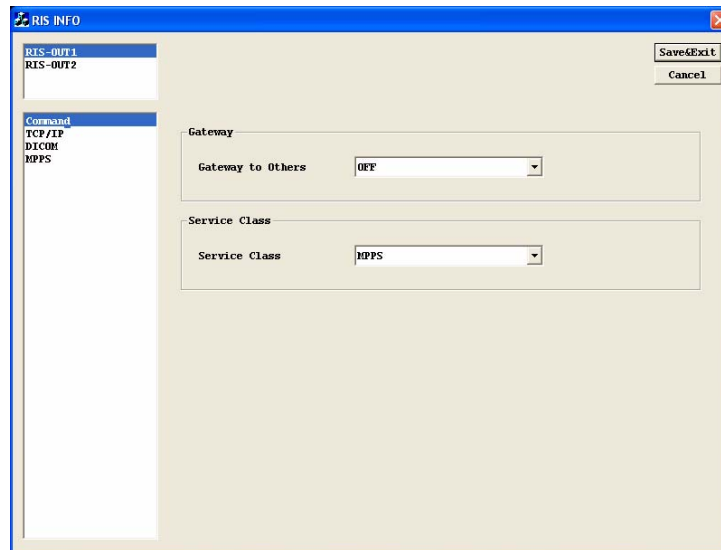


Key/Item	Function
Exam Tag --> CSV File	
File Name	Shows a file name of the Exam. Tag of Excel format with path.
[Browse...]	Opens the dialogue for opening the file, and specifies the save destination and the file name.
[Export]	Implements file export.
CSV File--> Exam Tag	Shows a file name of the Exam. Tag of Excel format with path.
File Name	Shows a file name of the Exam. Tag of Excel format with path.
[Browse...]	Opens the dialogue for opening the file, and specifies the save destination and the file name.
[Import]	Implements file import.
[Exit]	Exit “[RIS Code] - [Exam Tags] Conversion” screen. <ul style="list-style-type: none"> Automatically exit after implementing [Export] or [Import].

13.9.8 “RIS INFO • Command” Screen (Result)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [RIS] --> “Result” --> (Select [Command] in the lower left menu.)



Key/Item	Function
Gateway	
Gateway to Others	<p>Select whether to use the gateway program (program other than DICOM).</p> <ul style="list-style-type: none"> • OFF : Do not use the gateway program. • Dr. View : Use the gateway exclusive for Dr. View/RIS (Asahi Kasei Informations Systems)
Service Class	
Service Class	<p>Select the DICOM Service class to be used.</p> <p>Setting affects the gateway program when Gateway to Others is set to “ON” or “Dr. View” is selected.</p> <ul style="list-style-type: none"> • Detached ••• Uses the “DICOM Detached”. • MWM)••• Uses the “DICOM MWM”. • When “Gateway to Others” is set to “ON” or “Dr. View”, Service Class should be set in relation to the Gateway program. • Depending on the selection, the menu in the left column changes. The above screen is the case when “Detached” is selected. When “MWM” is selected, “Detached” changes to “MWM”.

13.9.9 “RIS INFO • TCP/IP” Screen (result)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [RIS] --> “Result” --> (Select [TCP/IP] in the lower left menu.)

The screenshot shows the 'RIS INFO' window with the 'TCP/IP' configuration screen. The left sidebar has a 'Command' menu with options: RIS-OUT1, RIS-OUT2, TCP/IP (highlighted), DICOM, and NPFS. The main configuration area includes the following fields:

- Host Name:** RIS1 (Max. 32 Characters)
- IP Address:** 192.168.20.90
- Port Number:** 5600
- Timeout 1:** 60000 [msec], receiving timeout
- Interval 1:** 1000 [msec], outputting interval

Buttons for 'Save&Exit' and 'Cancel' are located in the top right corner of the window.

Key/Item	Function
TCP/IP	
Host Name	Input the RIS name from which the patient information is sent to the CS-3 using 1 byte x 32 characters.
IP Address	Input the RIS's IP address from which the patient information is sent to the CS-3.
Port Number	Input the RIS's port No. from which the patient information is sent to the CS-3.
Timeout 1	Input the duration (ms) for which the CS-3 waits a confirmation from the receiver that it received the data correctly. (default : 30000)
Interval 1	Input the output interval (msec). (default : 1000)

13.9.10 “RIS INFO • DICOM” Screen (result)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [RIS] --> “Result” --> (Select [DICOM] in the lower left menu.)

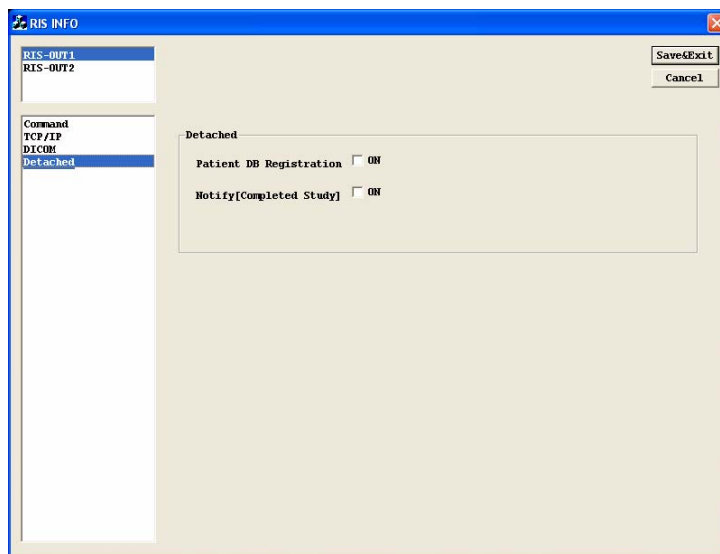
Key/Item	Function
DICOM	
Transfer Syntax	Select the Transfer Syntax. <ul style="list-style-type: none"> Only “Implicit VR Little Endian” is available at the moment.
RIS AE-Title	Input the AE title of the RIS(s) using 1 byte x 16 alphabets.
REGIUS AE-Title	Input the AE title of the CS-3 using 1 byte x 16 alphabets.
PDU Size	Input the maximum receipt length (0 ~ 65536). <ul style="list-style-type: none"> Normally input the default “65536”.
Version Name	Displays the implemented version name “KC_RGUS_1.00”. <ul style="list-style-type: none"> Change disabled.
UID	Displays UID. <ul style="list-style-type: none"> Change disabled.
Character Set	<ul style="list-style-type: none"> “ASCII” “Latin1”

13.9.11 “RIS INFO • Detached” Screen (result)

This setting is required when “Detached” is selected in “Service Class” of "13.9.8 “RIS INFO • Command” Screen (Result)", 13-66.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure • • • • [Console] --> [RIS] --> “Result” -->(Select [Detached] in the lower left menu.)



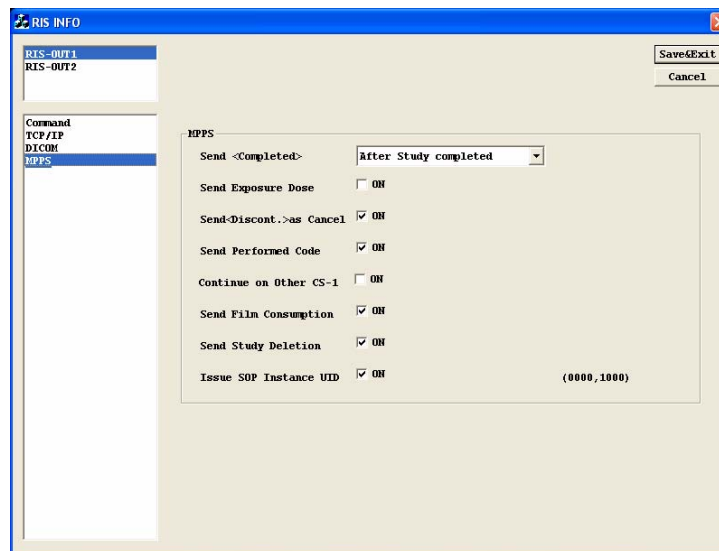
Key/Item	Function
Detached	
Patient DB Registration	Select whether to register the patient info that is changed on the CS on the DB of RIS. <ul style="list-style-type: none"> • ON : Patient info changed on the CS will also be registered on the patient DB of RIS. • OFF : Only the patient info that is newly input on the CS will be registered on the patient DB of RIS.
Notify [Completed Study]	Check “ON” to notify the RIS of completion of the study. (default : OFF)

13.9.12 “RIS INFO • MPPS” Screen (result)

This setting is required when “MPPS” is selected in “Service Class” of "13.9.8 “RIS INFO • Command” Screen (Result)", 13-66.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Console] --> [RIS] --> “Result” --> (Select [MPPS] in the lower left menu.)

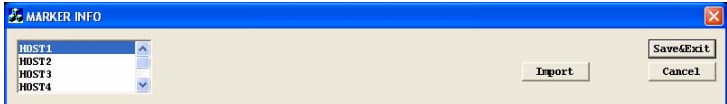


Key/Item	Function
MPPS	
Send <Completed>	<p>Select the timing with which the exam. result will be sent to the RIS. (default : After Output completed)</p> <p>None Sending ••• Sends only the exposure start signal.</p> <p>After Image Confirmed ••• Sends when [OK] button is clicked on the “Exposed Image Confirmation” screen.</p> <p>After Output completed ••• sends when the output to the host or printer is completed.</p> <p>• Enabled when “MPPS” is selected in “Service Class”.</p>
Send Exposure Dose	<p>Check “ON” to include the X-ray dose in the exam. result. (default : OFF)</p> <p>• Enabled when “MPPS” is selected in “Service Class”.</p>
Send <Discont.> as Cancel	<p>When suspending the exam without processing any image, the image suspended in examination is enabled to be performed on the other CS-3 when [ON] is ticked.</p>
Send Performed Code	<p>Check “ON” to return the exam key from the CS-3 to RIS after altering on the CS-3.</p>
Continue on Other CS-3	<p>Check “ON” to perform one examination on several CS-3s. (default : OFF)</p>
Send Film Consumption	<p>Check “ON” to send the film consumption (sheets) to the RIS. (default : ON)</p>
Send Study Deletion	<p>Check “ON” to delete the examination from reservation list on the RIS when it is deleted on the “Exam List” screen . (default : ON)</p>
Issue SOP Instance UID	<p>Check “ON” so that the CS-3 issues the UID which associates the Study Completion to Study Start of the MPPS.</p> <ul style="list-style-type: none"> • Leave it as “ON” in normal use.

13.10 [Console] > [Marker]

13.10.1 Common Settings of “MARKER INFO” Screen

<Important>Make sure to back up the data before starting this setting.



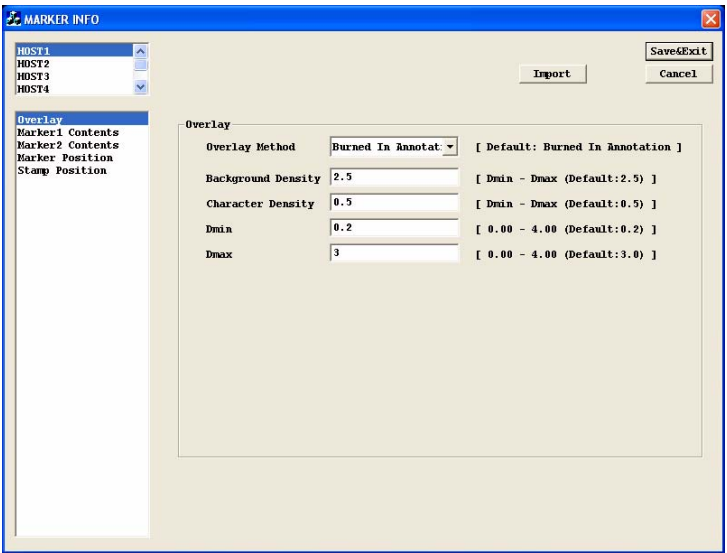
Key/Item	Function
Output Destination Selection (upper right menu)	Select the output destination name on which the marker is set.
[Import]	Click on this button to copy the existing marker setting, and to apply this setting to the other device. <ul style="list-style-type: none">Upon clicking, a window to select the copy original and copy destination will be shown.
[Save & Exit]	Exit from the “MARKER INFO” screen after saving the setting.
[Cancel]	Exit from the “MARKER INFO” screen without saving the setting.

13.10.2 “MARKER INFO • Overlay Set” Screen

Apply the same settings for “R/L marker”, “Ori. Marker”, “Stamp”.

Start up from the system menu ☒ Start up from the REGIUS Service Screen ☒ A part of items can be changed Using the user Tool.

Display Procedure • • • • [Console] --> [Marker] -->(Select [Overlay] in the lower left menu.)



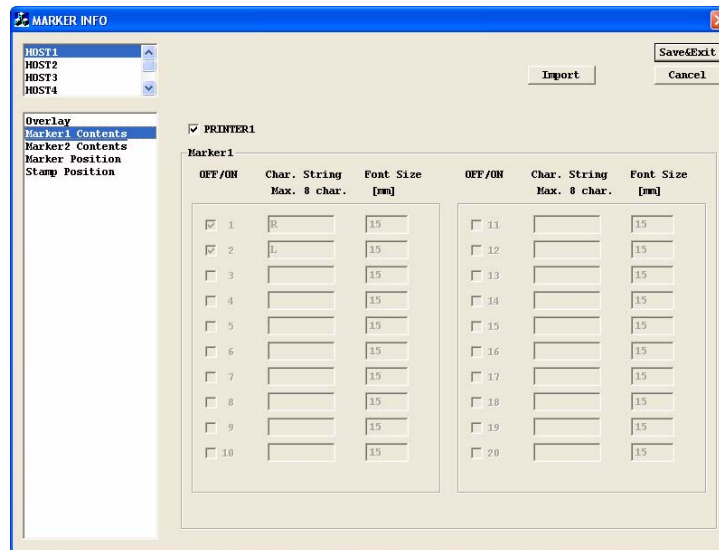
Key/Item	Function
Overlay	
Overlay	Select the overlay type from the following. Overwrite on the image data • • • Writes the overlay information as a part of image. Embed in the image data • • • Embeds the overlay information in the vacant bits of the image data. Select this setting enables the alteration of the overlay information later.
Background Density	Input the density value for the background of the marker.
Character Density	Input the density of the marker text.
Dmin	Input the lowest density of the image.
Dmax	Input the highest density of the image.

13.10.3 “MARKER INFO • Marker1 Contents” Screen

Set screen for R/L marker.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be changed Using the user Tool.

Display Procedure • • • • [Console] --> [Marker] --> (Select [Marker1 Contents] in the lower left menu.)



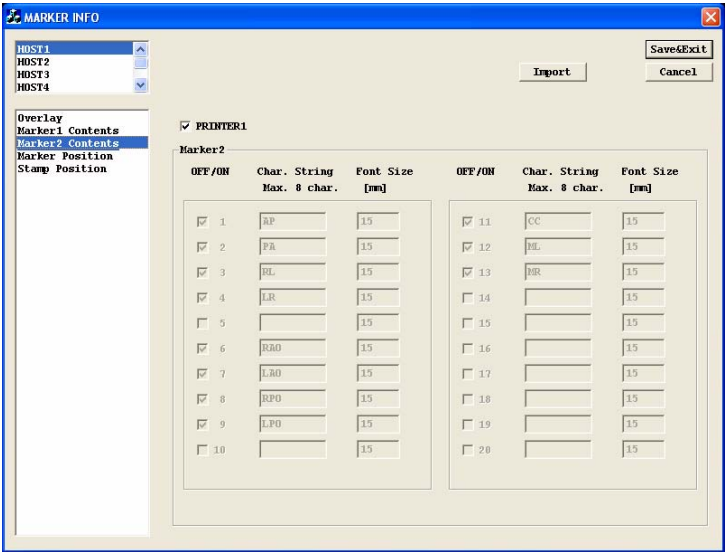
Key/Item	Function
PRINTER 1	Appears when the host is selected in the “Output Target” menu. Tick this box to enable the Marker 1 setting to be interlocked with the printer.
Marker 1	
ON/OFF	Select the R/L marker that will be selectable on the “Marker 1 Select” screen of the CS-1/CS-3 application.
String	Input the marker character strings within 1 byte x 8, 2 byte x 4.
Char. Size	Input the size (mm) of the marker text.

13.10.4 “MARKER INFO • Marker2 Contents Set” Screen

Set screen for R/L marker.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be changed Using the user Tool.

Display Procedure [Console] --> [Marker] --> (Select [Marker2 Contents] in the lower left menu.)



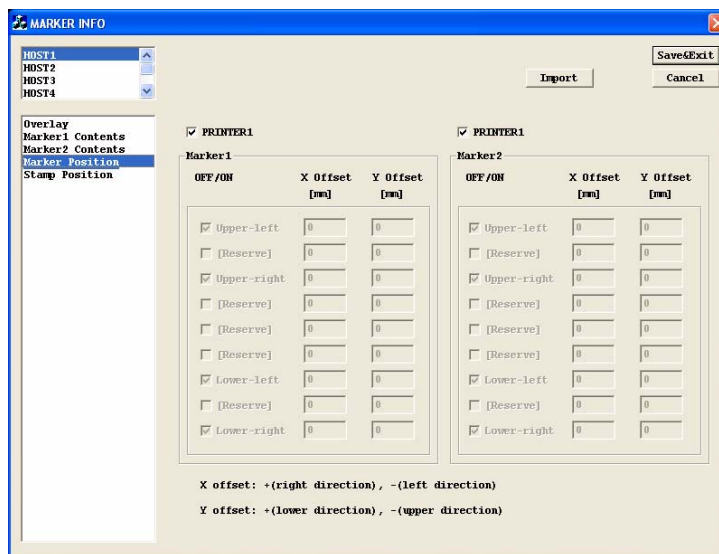
Key/Item	Function
PRINTER 1	Appears when the host is selected in the “Output Target” menu. Tick this box to enable the Marker 2 setting to be interlocked with the printer.
Marker 2	
ON/OFF	Select the R/L marker that will be selectable on the “Marker 1 Select” screen of the CS-1/ CS-3 application.
String	Input the marker character strings within 1 byte x 8, 2 byte x 4.
Char. Size	Input the size (mm) of the marker text.

13.10.5 “MARKER INFO • Marker Position” Screen (both markers)

Set screen for setting the display position of R/L, Ori. markers.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be changed Using the user Tool.

Display Procedure • • • • [Console] --> [Marker] --> “(Select [Marker Position] in the lower left menu.)



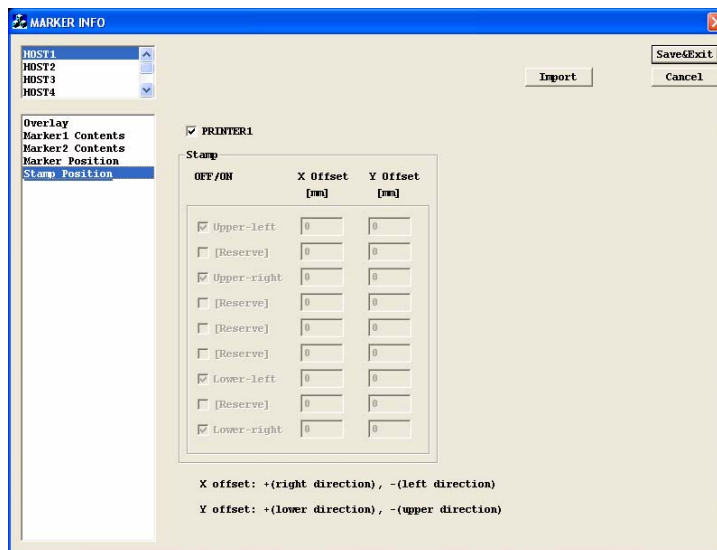
Key/Item	Function
PRINTER 1	Appears when the host is selected in the “Output Target” menu. Tick this box to enable the Stamp setting to be interlocked with the printer. <ul style="list-style-type: none"> “Overlay 1” setting interlocked with the printer in the “HOST INFO • Image” screen will also be changed.
Marker 1	
ON/OFF	Select (check) the position on the film where the marker 1 will be printed.
X Offset	Input the shifting amount (mm) to horizontally shift the marker 1 position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the left.
Y Offset	Input the shifting amount (mm) to vertically shift the marker 1 position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the upper.
Marker 2	
ON/OFF	Select (check) the position on the film where the marker 2 will be printed.
X Offset	Input the shifting amount (mm) to horizontally shift the marker 2 position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the left.
Y Offset	Input the shifting amount (mm) to vertically shift the marker 2 position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the upper.

13.10.6 “MARKER INFO • Stamp Position” Screen

Set screen for setting the display position of R/L, Ori. markers.

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be changed Using the user Tool.

Display Procedure ••• [Console] --> [Marker] --> (Select [Stamp Position] in the lower left menu.)



Key/Item	Function
PRINTER 1	Appears when the host is selected in the “Output Target” menu. Tick this box to enable the Stamp setting to be interlocked with the printer. <ul style="list-style-type: none"> “Overlay 1” setting interlocked with the printer in the “HOST INFO • Image” screen will also be changed.
Stamp	
ON/OFF	Select (check) the position on the film where the stamp will be printed.
X Offset	Input the shifting amount (mm) to horizontally shift the stamp position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the left.
Y Offset	Input the shifting amount (mm) to vertically shift the stamp position from the current setting. <ul style="list-style-type: none"> Affix (-) to shift to the upper.

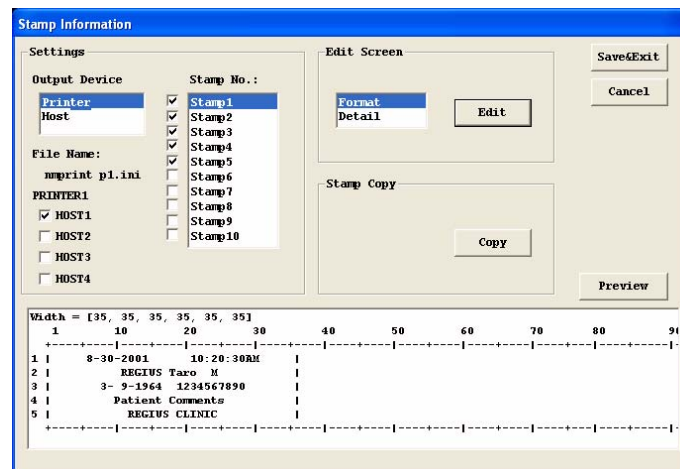
13.11 [Console] > [Stamp]

13.11.1 “Stamp Information” Screen

<Important> Make sure to back up the data before changing the setting. ("13.26.1 “System Setup File Save” Screen", 13-136)

Start up from the system menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be changed Using the user Tool.

Display Procedure • • • • [Console] --> [Stamp]



Key/Item	Function
Settings	
Output Devices	Select the output device on which you want set a stamp (stamp).
Check Box (enable)	Select (check) the stamp No. that will be selectable on the “Stamp Select” screen of the CS-1/CS-3 application.
Stamp No.	Select the stamp No. to be set. <ul style="list-style-type: none"> Select the stamp No. to show its sample on the lower part of the screen.
File Name	The file name in which the stamp design selected by “Stamp No.” is scribed will be displayed.
PRINTER	Check boxes as many as the hosts set to the “Registered” will be displayed. Ticking this box enables the stamp setting for the host to be interlocked with the printer. <ul style="list-style-type: none"> “Overlay” setting interlocked with the printer in the “HOST INFO • Image” screen will also be changed.
Edit Screen	
Screen Select	Select the screen on which the stamp is set. <ul style="list-style-type: none"> “Format” ••• Selects the screen on which the overall stamp size (lines), etc. is set. “Detail” ••• Selects the screen on which stamp items in detail is set.
[Edit]	Displays the screen selected by “Screen Select”, and enables to edit on the screen. <ul style="list-style-type: none"> “Format” ••• Displays the screen on which the overall stamp size (lines), etc. is set. “Detail” ••• Displays the screen on which stamp items in detail is set.
Stamp Copy	
[Copy]	Use this button to copy the existing stamp setting, and apply to the other device. <ul style="list-style-type: none"> Click to open the copied screen of the setting.
[Preview]	Click this button to see the text size, etc., with which you can simulate the actual output. <ul style="list-style-type: none"> Clicking on this button will initiate the paint software of Windows 2000, and shows the bit map of the selected stamp sample.
[Save & Exit]	Click this button to exit from the “Stamp Information” screen after saving the setting.
[Cancel]	Click this button to exit from the “Stamp Information” screen without saving the setting.

13.11.2 “Stamp Format” Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●	A part of items can be changed Using the user Tool.
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Display Procedure •••• [Console] --> [Stamp] --> Select [Format] in the screen select menu --> [Edit]

Key/Item	Function
Stamp Size	
Total Lines	Input the total number of lines for stamp. (1 ~ 6 lines)
Width	Input the length (mm) of the display area for the stamp.
Font Size per Line	
1 ~ 6 line	Input the text height (mm) for each line.
Others	
Alignment	Select the line alignment for the stamp block from the following. “default (left-aligned)” ••• Align the line to the left. “Center (center-aligned)” ••• Align the line to the center.
[Refresh]	Clicking on this button will update the sample display shown on the lower margin of the screen.
[Preview]	Click this button to see the text size, etc., with which you can simulate the actual output. <ul style="list-style-type: none"> Clicking on this button will initiate the paint software of Windows 2000, and shows the bit map of the selected stamp sample.
[Exit]	Click this button to exit from the “Gen. Setting” screen after temporary saving the setting. <ul style="list-style-type: none"> The setting will not be saved until the [Save & Exit] is clicked on the "13.11.1 “Stamp Information” Screen", 13-76.
[Cancel]	Click this button to exit from the “Stamp Format” screen without saving the setting.

- “Total Lines”, “Width” and “Font Size per Line” can be set independently. Therefore, it may happen that the character line does not fit to the stamp area depending on the setting. For those items such as “Patient Name”, “Patient ID”, etc. that are not fixed in character count, check that all characters presuming the longest can fit to the stamp area.

13.11.3 “Set Stamp” Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●	A part of items can be changed Using the user Tool.
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Display Procedure •••• [Console] --> [Stamp] --> Select [Detail] in the screen select menu --> [Edit].

Set Stamp

Stamp No.: Printer - Stamp1

File Name: nprint.pl.ini

Exit

Cancel

No	Item	Position Row Column	Length (0:var.)	Options	Sample (41:Fixed Str.)
1	<input checked="" type="checkbox"/> Institution Name	5th 1	30	Undefined	REGIUS CLINIC
2	<input type="checkbox"/> Department Name	5th 1	10	Undefined	Radiology
3	<input type="checkbox"/> Requesting Service	2nd 1	0	Undefined	Orthopedics
4	<input checked="" type="checkbox"/> Image Date	1st 1	0	"Date-US(M- D-YYYY)"	20010830
5	<input checked="" type="checkbox"/> Image Time	1st 1	0	"Time(H- M- S)"	102030
6	<input checked="" type="checkbox"/> Patient ID	3rd 1	16	Undefined	1234567890
7	<input checked="" type="checkbox"/> Patient's Name	2nd 1	20	"Name"	REGIUS Taro
8	<input type="checkbox"/> Other Patient ID	2nd 1	20	Undefined	0T1234567890
9	<input type="checkbox"/> Other Patient Names	2nd 1	20	"Name"	REGIUS HANA
10	<input checked="" type="checkbox"/> Patient's Sex	2nd 1	0	Undefined	M

Refresh Preview

Width = [35, 35, 35, 35, 35, 35]

```

1 10 20 30 40 50 60 70 80 90 100
1 | 8-30-2001 | 10:20:30AM |
2 | REGIUS Taro M |
3 | 3- 9-1964 | 1234567890 |
4 | Patient Comments |
5 | REGIUS CLINIC |

```

Key/Item	Function
Check Box (enable)	Select (check) from 60 items to be included in the stamp. <ul style="list-style-type: none"> For No.41 onward, you can set any character strings.
Item	Select the item(DICOM defined or Konica defined items) that shall be displayed in the stamp(refer to the “Item Name List”)
Stamp Layout	
Row	Specify the starting line of display (vertical) by line (line counts from the top). (“Com-ment Ttl Lines” of "13.11.2 “Stamp Format” Screen ", 13-77.
Column	Specified the starting raw of display (horizontal) by raw (1 byte character counts from the left end). <ul style="list-style-type: none"> When several items are set for one line, the item with lesser numbers input will be displayed on the left.
Length	Specify the display width of item by number of 1 byte characters.
Options	Select the display forms. <ul style="list-style-type: none"> The display type will be different depending on the setting of “Item Name”. (refer to the “Item Name List”)
Sample String	<ul style="list-style-type: none"> No.1~40 : Input the sample characters in each item that shall be exhibited on sample display(Reload) and bit map(Preview) display. No.41~60 : Input the characters free from the item, which will displayed on the stamp.
[Refresh]	Clicking on this button will update the sample display shown on the lower margin of the screen.
[Preview]	Click this button to see the text size, etc., with which you can simulate the actual output. <ul style="list-style-type: none"> Clicking on this button will initiate the paint software of Windows 2000, and shows the bit map of the selected stamp sample.
[OK]	Click this button to exit from the “Set Stamp” screen after temporary saving the setting. <ul style="list-style-type: none"> The setting will not be saved until the “OK” is clicked on the "13.11.1 “Stamp Information” Screen", 13-76.
[Cancel]	Click this button to exit from the “Set Stamp” screen without saving the setting.

- Item Name List

ITEM	DICOM TAG NR; DICOM VM	DISPLAY STYLE	ITEM	DICOM TAG NR; DICOM VM	DISPLAY STYLE
Study Date	0008,0020:1	B	Field of View Shape	0018,1147:1	A
Image Date	0008,0023:1	B	Field of View-Row	0018,1149:1	A
Study Time	0008,0030:1	C	Field of View-Col	0018,1149:2	A
Image Time	0008,0033:1	C	Exposure Time	0018,1150:1	A
Accession Number	0008,0050:1	A	X-ray Tube Current	0018,1151:1	A
Institution Name	0008,0080:1	A	Exposure	0018,1152:1	A
Institution Address	0008,0081:1	A	Rectification Type	0018,1156:1	A
Referring Physician	0008,0090:1	D	Filter Type	0018,1160:1	A
Station Name	0008,1010:1	A	Pixel Spacing-Row	0018,1164:1	A
Department Name	0008,1040:1	A	Pixel Spacing-Col	0018,1164:2	A
Recording Physician	0008,1048:1	D	Grid	0018,1166:1	A
Performing Physician	0008,1050:1	D	Focal Spot	0018,1190:1	A
Reading Study Phys.	0008,1060:1	D	Anode Material	0018,1191:1	A
Operator's Name	0008,1070:1	D	Phosphor Type	0018,1261:1	A
DiagnosesDescription	0008,1080:1	A	Cassette Orientation	0018,1402:1	A
Model Name	0008,1090:1	A	Read Size	0018,1403:1	A
Patient's Name	0010,0010:1	D	View Position	0018,5101:1	A
Patient ID	0010,0020:1	A	Sensitivity	0018,6000:1	A
Patient's Birth Date	0010,0030:1	B	Detector ID	0018,700A:1	A
Patient's Birth Time	0010,0032:1	C	Grid Absorb.Material	0018,7040:1	A
Patient's Sex	0010,0040:1	A	Grid SpacingMaterial	0018,7041:1	A
Other Patient ID	0010,1000:1	A	Grid Thickness	0018,7042:1	A
Other Patient Names	0010,1001:1	D	Grid Pitch	0018,7044:1	A
Patient's Age	0010,1010:1	E	Grid AspectRatio-V	0018,7046:1	A
Patient's Height	0010,1020:1	A	Grid AspectRatio-H	0018,7046:2	A
Patient's Weight	0010,1030:1	A	Grid Focal Distance	0018,704C:1	A
Medical Alerts	0010,2000:1	A	Filter Material	0018,7050:1	A
Contrast Allergies	0010,2110:1	A	Filter Thickness Min	0018,7052:1	A
Ethnic Group	0010,2160:1	A	Filter Thickness Max	0018,7054:1	A
Occupation	0010,2180:1	A	Exposure Ctrl Mode	0018,7060:1	A
Add. Patient History	0010,21B0:1	A	Exposure Status	0018,7064:1	A
Pregnancy Status	0010,21C0:1	A	Study Instance UID	0020,000D:1	A
Patient Comments	0010,4000:1	A	Series Instance UID	0020,000E:1	—
Contrast/Bolus Agent	0018,0010:1	A	Study ID	0020,0010:1	A
Body Part Examined	0018,0015:1	A	Series Number	0020,0011:1	A
KVP	0018,0060:1	A	Instance ID	0020,0013:1	A
Serial Number	0018,1000:1	A	Pat. Orientation-1st	0020,0020:1	A
Software Versions	0018,1020:1	A	Pat. Orientation-2nd	0020,0020:2	A
C/B Route	0018,1040:1	A	Laterality	0020,0060:1	A
C/B Volume(cm3)	0018,1041:1	A	Image Laterality	0020,0062:1	A
C/B Start Time	0018,1042:1	C	Other Study ID	0020,1070:1	A
C/B Stop Time	0018,1043:1	C	Image Comment	0020,4000:1	A
C/B Total Dose	0018,1044:1	A	Num. of Image	0021,1052:1	—
Contrast Flow Rate	0018,1046:1	A	Rows	0028,0010:1	A
Contrast Flow Dur.	0018,1047:1	A	Columns	0028,0011:1	A
C/B Ingredient	0018,1048:1	A	QC Image	0028,0300:1	A
C/B Concentration	0018,1049:1	A	Study Priority	0032,000C:1	A
Source-Detector[mm]	0018,1110:1	A	Sched.StudyStartDate	0032,1000:1	B
Source-Patient[mm]	0018,1111:1	A	Sched.StudyStartTime	0032,1001:1	C

ITEM	DICOM TAG NR; DICOM VM	DISPLAY STYLE	ITEM	DICOM TAG NR; DICOM VM	DISPLAY STYLE
Reason for Study	0032,1030:1	A	Refer. Pending		A
Requesting Physician	0032,1032:1	D	Study Pending		A
Requesting Service	0032,1033:1	A	Host Pending		A
Study Comments	0032,4000:1	A	Output Device		A
Special Needs	0038,0050:1	A	Img Confirm mode		A
Cur. Patient Location	0038,0300:1	A	Img Confirm screen		A
Pat. Residence(Ward)	0038,0400:1	A	Input Distinguish		A
Patient State	0038,0500:1	A	Internal Img No.		A
Total Exposure Dur.	0040,0300:1	A	Mag.mode(integer)		—
Total Exposure Num.	0040,0301:1	—	Mag.mode(float)		—
Entrance Dose	0040,0302:1	A	ExamTag Group		A
Exposed Area	0040,0303:1	A	ExamTag Name		A
Source-Entrance[mm]	0040,0306:1	A	LUT Name		—
Radiation Comments	0040,0310:1	—	DL(G-Process)		—
Transport Arrange.	0040,1004:1	—	DH(G-Process)		A
Recipients of Result	0040,1010:1	D	S-Value		A
Placer Order Number	0040,2016:1	—	G-Value		A
Filler Order Number	0040,2017:1	—	Shift		A
Pat. Confidentiality	0040,3001:1	A	Rotate		A
Medium Type	2000,0030:1	—	E ON/OFF		A
Film Size ID	2010,0050:1	—	F ON/OFF		A
Number of Films	2100,0170:1	—	E bl		A
			E bh		A
Set Exam Tag Num		A	E MaskSize		A
Set Page Name		A	F b1		A
Set Group Name		A	F b2		A
Set Tag Name		A	F MaskSize		A
User Exam Tag Num		A	H ID (HE or HF)		A
User Page Name		A	HF-STANDARD		A
User Group Name		A	HE-STANDARD		A
User Tag Name		A	HF-b2		A
XrayCtrlCode		A	HF-b1		A
Tube Num		A	HE-bh		A
AEC Position		—	HE-bl		A
Guard		A			

- Blank cells in the “DICOM TAG NR: DICOM VM” column indicate the items are unique to Konica.
- For display styles that can be selected in “DISPLAY STYLE”, refer to the following tables. (“—” indicates that the selection of display style is not available)
- <Display Styles> List

A	Undefined
	Convert to Hex
	2-byte Character
	Divided by 100
	Decimal down 2
	OFF/ON
	Yes/No
	Marker Position
	(Sex Entry)
	Sex Entry

B	"Date(JP-YYYY)"
	"Date(JP-YY)"
	"Date(JP-JP)"
	"Date(US-YYYY)"
	"Date(US-YY)"
	"Date(US-JP)"
	"Date(UK-YYYYYY)"
	"Date(UK-YY)"
	"Date(UK-JP)"

C	"Time(JP-HH+MM+SS)"
	"Time(JP-HH+MM)"
	"Time(HH-MM-SS)"
	"Time(HH-MM)"

D	"Name/JP1(2byte)"
	"Name/JP2(Kana1)"
	"Name/JP3(Kana2)"
	"Name"

E	"Age"
	"Age"

13.12 [Console] > [Exam Tag]

13.12.1 “Exam Tag Setup” Screen

<Important>Make sure to back up the data before changing the settings. ("13.26.1 “System Setup File Save” Screen", 13-136).

Start up from the system menu	●	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Console] --> [Exam Tag]

Key/Item	Function
Reader	<p>Selecting the type of reader device from the combo box will restrict the display of the exam. tag list.</p> <ul style="list-style-type: none"> List of the Exam. Tags available on the selected reader will be shown. Only the condition of the modality that is registered is displayed in the box and selectable.
Body Part	Selecting the body parts from the combo box will restrict the display of the exam. tags.
Exam Tag List	<p>The status of the exam. tags registered on the CS-3 will be described in different colors.</p> <p>Text Colors :</p> <p>White ••• Indicates this is an original Exam Tag key of the REGIUS Master.</p> <p>Orange ••• Indicates this is a key copied from an original Exam Tag.</p> <ul style="list-style-type: none"> The key selected on the list will be displayed in blue regardless of the key origin as shown above. Double-clicking the selected key will open the “Detail Setting” window of that key. <p>Background Colors :</p> <p>Dark Green ••• Indicates the Exam Tag key has been registered as a set key (a key to be displayed on the “Body Part/Order Select” screen).</p> <p>Black •••Indicates the key is not registered as a set key (not assigned).</p>
Selection Scope	Select from the following, the exam. tags to which the altered setting is applied.
Selection	Applies the changes to the currently selected keys.
All	Applies changes to all keys.
Exam Tag Name	Applies changes to the key whose key name is input.
[Search]	Starts search.
[IDS]	<p>Exports the Exam Tag as a compressed file.</p> <ul style="list-style-type: none"> Displays the IDS export dialogue.

Key/Item	Function
[Property]	<ul style="list-style-type: none"> Clicking on this button after selecting the exam. tag will display the “Detailed Setting” screen (1/3).
[Save & Exit]	Exit the “Exam Tag Setup” screen after saving the changes of Exam. Tags.
[Cancel]	Exit the “Exam Tag Setup” screen without saving the changes of Exam. Tags.

Serial No. of keys (raw)	An identical serial number (18 digits) is assigned to each exam. tag.
Digits from the right end	Descriptions
1 ~ 2 digits	Copy history. Increments by “1” each time it is copied.
3 ~ 4th digits	spare
5 ~ 6th digits	Orientation
7 ~ 8th digits	Technical method
9th digit	Right and left
10 ~ 12th digits	Body parts 2 (corresponds to a group)
13~ 15th digits	Body parts 1 (corresponds to a general classification)
16~ 17th digits	Machine code; 00 : Old machines (REGIUS 150, REGIUS 330) 01 : New machines (REGIUS 170, REGIUS 350)
18th digit	Modality 1 : Cassette, 2: Erect 3 : Recumbent

13.12.2 “Detail Setup” Screen (1/3)

Start up from the system menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Console] --> [Exam. Tag] --> “select the Exam. Tag” --> [Property]

Key/Item	Function
ExamTag Information	Input the names for user exposure condition, group, page.
Read Information	Set various information regarding the reading from the reader device.
Output Info.	<ul style="list-style-type: none"> Set various conditions for output. Clicking on the “Dev. Set Up” will display the “Device Set” screen. (refer to "13.12.3 “Output Device Information” Screen ", 13-84)
Study Information	To specify the body parts, select the body part to be examined in the dialogue which will be displayed by clicking the “Part Select”.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new setup reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 3/3” screen.
[Next Page]	Proceed to “Detail Setup 2/3” screen.

13.12.3 “Output Device Information” Screen

Start up from the system menu	●	Start up from the REGIUS Service Screen	●
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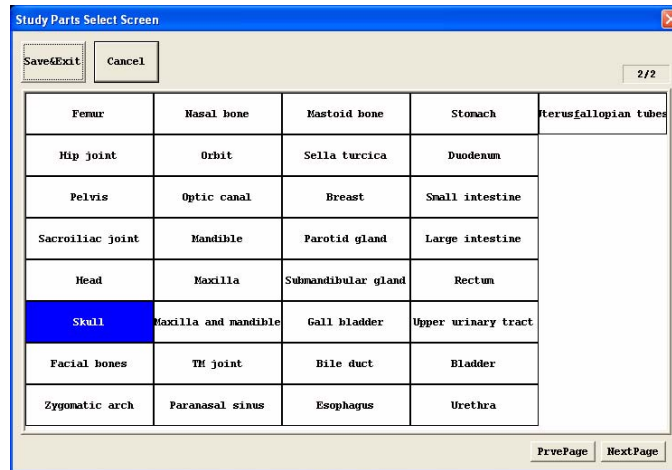
Display Procedure ●●●● [Console] --> [Exam Tag] --> “select the Exam. Tag” --> [Dev. Setup] --> [Dev. Set up]

Key/Item	Function
Output Device Selection Box	Select the output device to be set.
Operational Setting	Select in the combo box, and set various conditions for the output device regarding output counts, output size, trimming, image processing, etc.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new setup reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.

13.12.4 “Study Parts Select” Screen

Start up from the system menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
-------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Console] --> [Exam. Tag] --> “select the Exam. Tag” --> [Body Part]



Key/Item	Function
Body Part List	Select the body part to be examined in the table.
[Save & Exit]	Click this button to exit from the “Study Parts Select” screen with the newly selected body part reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Study Parts Select” screen without updating the setup.
[Previous Page]	Proceed to previous “Study Parts Select” page.
[Next Page]	Proceed to next “Study Parts Select” page.

13.12.5 “Detail Setup” Screen (2/3)

Start up from the system menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Console] --> [Exam. Tag] --> “select the Exam. Tag” --> [Property] --> [Next Page]

Key/Item	Function
ExamTag	Set various detailed information for image reading and X-ray generator device.
X-Ray Filter	Set various information for X-ray filter.
X-Ray Grid	Set various information for X-ray grid
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new setup reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
X-ray Result	
Auto Search Key	Use this key to allocate the exposure result to the exam tag key in conjunction with the X-ray exposure device for mammography. Input the key to search the orientation information obtained from the X-ray exposure device for mammography.
[Previous Page]	Proceed to “Detail Setup 1/3” screen.
[Next Page]	Proceed to “Detail Setup 3/3” screen.

13.12.6 “Detail Setup” Screen (3/3)

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
-------------------------------	----------------------------------	-----------------------------------------	----------------------------------

Display Procedure •••• [Console] --> [Exam. Tag] --> “select the Exam. Tag” --> [Property] --> [Next Page]

The screenshot shows the 'Detail Setup' dialog box, page 3 of 3. It contains the following fields and controls:

- Processing Name:** A text field with 'Skull PA/AP/LAT' and a 'Select' button.
- Image:** 'Orientation' dropdown set to '(Undefine)', 'QC Image' checkbox (unchecked), and 'YES' checkbox (unchecked).
- Contrast/Bolus:**
 - 'Agent' text field.
 - 'Route' text field.
 - 'Start Time' and 'Stop Time' each with Hr., Min., and Sec. dropdowns, and 'ON/OFF' checkboxes.
 - 'Total Dose' and 'Volume' text fields with '[cm3]' units.
 - 'Duration' and 'Rate' text fields.
 - 'Ingredient' dropdown set to '(Undefine)' and 'Concentration' text field.
- 2-Dimensional Revise:** '2-DIM Revise' dropdown set to 'OFF'.
- Stitching:** 'Target image for proc.' dropdown set to '2nd'.
- Buttons at the top: 'Save&Exit' and 'Cancel'. Bottom right: 'Previous Page' and 'Next Page'.

Key/Item	Function
Process Parameter	Select the process parameters in the dialogue that will be displayed by clicking on the “Select”. <ul style="list-style-type: none"> Refer to "13.12.7 “Select” Screen ", 13-88.
Image	Setting for patient orientation, etc.
Contrast/ Bolus	Settings for contrast medium and bolus.
2-Dimensional Revise	
2-DIM Revise	Sets the exam tag suitable for creating two dimensional correction data (user calibration). When it is ON, creates the two dimensional correction data at exposure. <ul style="list-style-type: none"> Valid only when exam tag for reading by REGIUS 350 and uneven correction are set for two dimensional correction purpose.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new setup reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 2/3” screen.
[Next Page]	Proceed to “Detail Setup 1/3” screen.

13.12.7 “Select” Screen

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
-------------------------------	----------------------------------	-----------------------------------------	----------------------------------

Display Procedure •••• [Console] --> [Exam. Tag] --> “select the Exam. Tag” --> [Dev. Setup] --> [Next Page] --> [Select]

Skull PA/AP/LAT	Zygoma Axial	Neck LAT	Fixed G(Chest)	UBL
Skull Towne	Orbit Caldwell	Neck OB	Fixed G(PedChest)	Pelvimetry
Sella AP/LAT	TM Joint	Parotid Gland PA	Chest-ABD	C-Spine AP
Sinuses AP/LAT	Transorbital	ParotidGland LAT	Pneumoconiosis	C-Spine LAT
Sinuses Waters	Mandible PA	Chest PA/AP	Abdomen PA/AP	C-Spine OB
Temporal Bone	Mandible LAT	Chest LAT	Abdomen LAT	Cervical OM
Optic C.	OPG	Ped. Chest PA/AP	RUB/IVP	T-Spine AP
Nasal Bone	Neck AP	Ped. Chest LAT	DIC/DCG	T-Spine LAT

Key/Item	Function
Image Process List	Displays the modalities set on the exam. tag and process parameters appropriate to the device. Select the process parameter, and double-click on that item.
[Save & Exit]	Click this button to exit from the “Process Select” screen with the newly selected process parameter reflected to the exam. tag key.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 2/3” screen.
[Next Page]	Proceed to “Detail Setup 1/3” screen.

13.13 [Console] > [Process]

13.13.1 “Process Parameter Setup” Screen

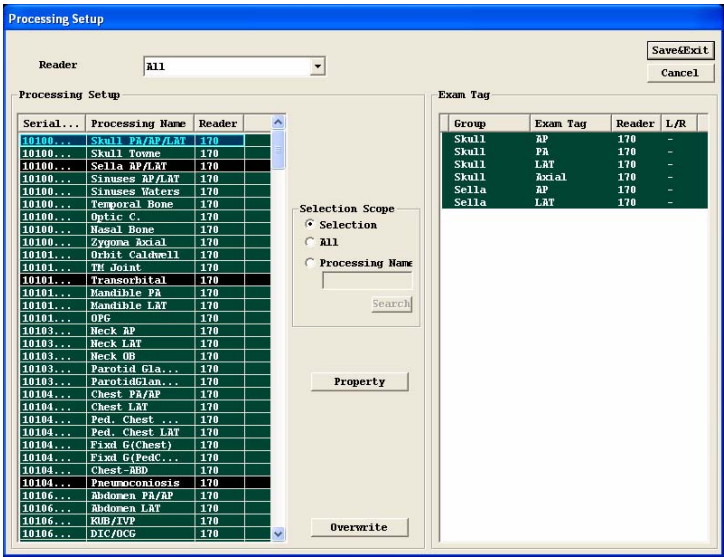
<Important>“Process Parameter Setup” screen of “Service Tool” is a screen on which process parameters can be changed in block.

To individually edit the process parameter, use the “Process Parameter Edit” screen of “User Tool”. It allows editing while allowing to check it on the screen.

<Important>Make sure to back up the data before changing the settings. ("13.26.1 “System Setup File Save” Screen", 13-136)

Start up from the system menu	●	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Console] --> [Process]



Key/Item	Function
Reader	<p>Select the type of reader device from the combo box, for which the list of process parameters shall be shown.</p> <ul style="list-style-type: none"> • Process parameters for the selected reader only will be listed. • The modality can be selected even when the reader device is not checked as available.
Process Parameter List	<p>The status of the exam. tags registered on the CS-3 will be described in different colors.</p> <p>Text Colors :</p> <p>White • • • Indicates this is an original Exam Tag key of the REGIUS Master.</p> <p>Orange • • • Indicates this is a key copied from an original Exam Tag.</p> <ul style="list-style-type: none"> • The key selected on the list will be displayed in blue regardless of the key origin as shown above. Double-clicking the selected key will open the “Detail Setting” window of that key. <p>Background Colors :</p> <p>Dark Green • • • Indicates the Exam Tag key has been registered as a set key (a key to be displayed on the “Body Part/Order Select” screen).</p> <p>Black • • • Indicates the key is not registered as a set key (not assigned).</p>
Selection Scope	Select from the following, the exam. tags to which the altered setting is applied.
Selection	Changes applied to the currently selected keys.
All	Changes applied to all keys.
Process	Input the process name (text) to be searched
[Search]	Starts searching.
[Property]	Clicking on this button after selecting the exam. tag will display the “Detail Setting” screen (1/5).
[Overwrite]	<p>Overwrite the selected process parameter with Regius Master.</p> <ul style="list-style-type: none"> • Restores the process parameters that have been manipulated by the user to the original REGIUS master.
Corresponding Exam Tag	
Exam Tag	<p>Displays the set exam. tag that contains the selected process parameter.</p> <ul style="list-style-type: none"> • Refer to "13.12.1 “Exam Tag Setup” Screen ", 13-81 for the display color.
[Save & Exit]	Exit from the “Processing Setup” screen after saving the changes of the process parameters.
[Cancel]	Exit from the “Processing Setup” screen without saving the changes of the process parameters.

13.13.2 “Detail Setup” Screen (1/5)

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Console] --> [Process] --> “select the Process Parameter” --> [Property]

Key/Item	Function
Process Information	Input the process name. ON/OFF setting of the flag for reprocessing is capable in the detailed setting.
Exposure Field Recognition Parameter	Various settings for irradiation field recognition parameters.
ROI (A/B) Parameter	Various settings for body part recognition parameters. Selectable from A and B.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new set up reflected to process parameter.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 5/5” page.
[Next Page]	Proceed to “Detail Setup 2/5” page.

13.13.3 “Detail Setup” Screen (2/5)

Start up from the system menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Console] --> [Process] --> “select the Process Parameter” --> [Property] --> “Next Page”

Key/Item	Function
Gray Scale (A/B) Calc.	Various settings for calculation parameters. Selectable from A and B.
SG-Value Limitation	Input the higher and lower limits for S-value and G-value in numbers.
Judgement Parameter	Input the judge parameter in numbers.
Partition Pattern Identification Parameter	Select from ON/OFF of the sepa. recog. parameter and input the parameter in numbers when “ON” selected.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new set up reflected to process parameter.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 1/5” page.
[Next Page]	Proceed to “Detail Setup 3/5” page.

13.13.4 “Detail Setup” Screen (3/5)

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
-------------------------------	----------------------------------	-----------------------------------------	----------------------------------

Display Procedure •••• [Console] --> [Process] --> “select the Process Parameter” --> [Property] --> “Next Page” x 2

The screenshot shows a software window titled "Detail Setup" with a page indicator "3 / 5". It contains two main sections:

- Image Orientation Discrimination Parameter:** A table with 8 rows and 2 columns.

1. Alg.	OFF
2.	0
3.	0
4.	0
5.	0
6.	0
7.	0
8.	0
- Image Parameter Description:** A table with 5 rows and 2 columns.

1. Density L	Use
2. Density H	No Use
3. G Process	Use
4. Priority ROI	ROI1
5. Masking	0

At the bottom right, there are buttons for "PrevPage" and "NextPage".

Key/Item	Function
Image Orientation Discrimination Parameter	Select from ON/OFF of the image ori. recog. parameter and input the parameter in numbers when “ON” selected.
Image Parameter Description	Select from Use/No Use.
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new set up reflected to process parameter.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 2/5” page.
[Next Page]	Proceed to “Detail Setup 4/5” page.

13.13.5 “Detail Setup” Screen (4/5)

<Important>Those except for the set items described here are strictly banned from changing. Pay attention when implementing set-ups.

Start up from the system menu ●	Start up from the REGIUS Service Screen ●
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Display Procedure •••• [Console] --> [Process] --> “select the Process Parameter” --> [Property] -->”Next Page” x 3

The screenshot shows the 'Detail Setup' window with a blue title bar and a yellow background. It has a 'Save&Exit' button and a 'Cancel' button at the top left, and a page indicator '4 / 5' at the top right. The window is divided into four sections: 'G-Process Parameter [Main]', 'G-Process Parameter [2nd]', 'E-Process Parameter [Main]', and 'E-Process Parameter [2nd]'. Each section contains various parameters with dropdown menus or text boxes. At the bottom right, there are 'PrevPage' and 'NextPage' buttons.

G-Process Parameter [Main]		G-Process Parameter [2nd]	
Basic LUT	BONE-03	Basic LUT	BONE-03
Rot. Value [x100]	10	Rot. Value [x100]	220
Rot. Cent. [x100]	100	Rot. Cent. [x100]	100
DL [x100]	50	DL [x100]	50
DH [x100]	OFF	DH [x100]	OFF

E-Process Parameter [Main]		E-Process Parameter [2nd]	
Table No.	General	Table No.	General
Mask Size	95	Mask Size	95
k11	50	kh1	50
k12	0	kh2	200
k13	0	kh3	0
k14	0	kh4	0
b1	0.00	bh	0.30

Key/Item	Function
G-Process Parameter*	Set the G-process parameter respectively for main image and 2nd Image. Items that can be changed here are following four items. <ul style="list-style-type: none"> • “Basic LUT” • “Rot. Value[x100]” • “DL[x100]” • “DH[x100]”
E-Process Parameter*	Set the E-process parameter respectively for main image and 2nd-image. Items that can be changed here are following three items. <ul style="list-style-type: none"> • “Mask Size” • “β l” • “β h”
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new set up reflected to process parameter.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 3/5” page.
[Next Page]	Proceed to “Detail Setup 5/5” page.

Note : Do not change the setting for the items other than marked with “*”.

13.13.6 “Detailed Setting” Screen (5/5)

Those except for the set items described here are strictly banned from changing. Pay attention when implementing set-ups.

Start up from the system menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure • • • [Console] --> [Process] --> “select the Process Parameter” --> [Property] --> “Next Page” x 4

The screenshot shows the 'Detail Setup' window with the following parameters:

F-Process Parameter [Main]				F-Process Parameter [2nd]			
Table No.	ON			Table No.	ON		
Mask Size	3			Mask Size	8		
k1	-40	kh	60	k1	-40	kh	60
b1	0.00	bh	0.30	b1	0.00	bh	3.00

H-Process Parameter [Main]				H-Process Parameter [2nd]			
Preset E	HE-STANDARD1			Preset E	HE-STANDARD1		
Preset F	HE-STANDARD6			Preset F	HE-STANDARD1		
k1	-40	k2	60	k1	-40	k2	60
ek11	50	ekh1	50	ek11	50	ekh1	50
ek12	0	ekh2	200	ek12	0	ekh2	200
ek13	0	ekh3	0	ek13	0	ekh3	0
ek14	0	ekh4	0	ek14	0	ekh4	0
b1	0.00	b2	0.50	b1	0.00	b2	1.00
eb1	0.00	ebh	0.30	eb1	0.00	ebh	0.30

Key/Item	Function
F-Process Parameter*	Set the F-process parameter respectively for main image and sub-image. Items that can be changed here are following three items. <ul style="list-style-type: none"> • “Mask Size” • “β 1” • “β h”
H-Process Parameter*	Set the H-process parameter respectively for main image and sub-image. Items that can be changed here are following six items. <ul style="list-style-type: none"> • “Preset E” • “Preset F” • “β 1” • “$e\beta$ 1” • “β 2” • “$e\beta$ h”
[Save & Exit]	Click this button to exit from the “Detail Setup” screen with the new set up reflected to process parameter.
[Cancel]	Click this button to exit from the “Detail Setup” screen without updating the setup.
[Previous Page]	Proceed to “Detail Setup 4/5” page.
[Next Page]	Proceed to “Detail Setup 1/5” page.

Note : Do not change the setting for the items other than marked with “*”.

13.14 [Console] > [Patient DB]

13.14.1 “Patient DB Import” Screen

This tool is used to import the patient DB registered in the external DB, and reregister it in the CS-3's internal patient DB.

Use this function in the following cases. (refer to "• Import Procedures of Patient DB", 13-98 for import procedures)

- When only one CS-3 is present in the institute.
- When no RIS(IDS) is interfaced to the system.
- The existing device of the institute already has the patient DB, and CS-3 imports this DB at the time of installation.

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Console] --> [Patient DB] --> [Register Patient DB]

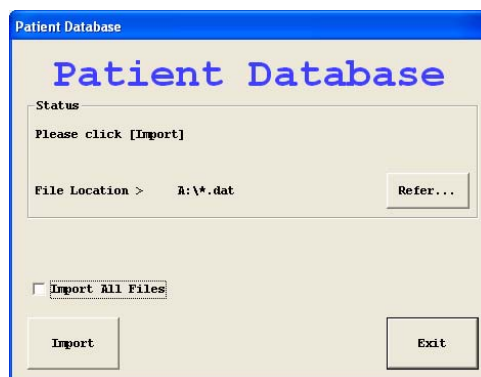
Key/Item	Function	
DB Form	Select the patient information file format which will be registered in the patient DB. Separated Data : Handle the data up to the bound symbol as one identical item. Select the bound symbol in the right menu. (comma or tab) Specify the Start Byte : Select when specify the position of the item by means of byte count in the file.	
Set Item	Patient ID	Click and select this item to load the patient ID.
	Patient Name	Click and select this item to load the alphabetical name.
	Birth Date	Click and select this item to load the birth day (y/m/d)
	Sex	Click and select this item to load the sex.
Read Position	Input the position of each items in the file by byte. <ul style="list-style-type: none"> • Will be displayed when “Bound Symbol” is selected for the read method. 	
Start Byte	Input the start position of each item by byte. <ul style="list-style-type: none"> • Will be displayed when “Specify Start Byte” is selected for the read method. 	
Read Byte	Input the length of each item by byte. <ul style="list-style-type: none"> • Will be displayed when “Specify Start Byte” is selected for the read method. 	
Birth Date Format	Select the display format of the birthday from the list.	
Male	Input the code that expresses the sex of the patient for both male and female. Checking default will use preset codes (male : m, female : f)	
Female		
[w/o 0 Padding]	Input the digits of the patient ID. When the read patient ID has less digits than the setting, registers the data with “0” added to the head. Input is enabled when the “Omit Head “0”” is disabled.	
Number Only	Click this item to abstract and save the figure data only of the patient ID.	
Omit Head “0”	Click this item to omit the head “0” and save the rest of the patient ID.	
Space Correction	Click this item to automatically add a space between family and given names of the patient. It also cuts off unnecessary spaces.	

Key/Item	Function
[ASCII]	Click this item to automatically convert the name to ASCII code and save it if original ASCII name is not found.
[Get Data from DB]	Reads the file in which the patient information is input, and registers it in the patient DB. Displays the “Patient database” screen.
[Get Data from DB (Test)]	Partially reads the file in which the patient information is input, and verifies the format set up is correct or not. Displays a confirmation screen for the format of the read data.
[Restore]	Loads the format which is already registered in the CS-3.
[Save Setting]	Saves the set up of format in the CS-3.
[Exit]	Exit the “BD Format Setting” screen.

13.14.2 “Patient Data Base” Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure ••• [Console] --> [Patient DB] --> [Register Patient DB] --> [Get Data from DB]

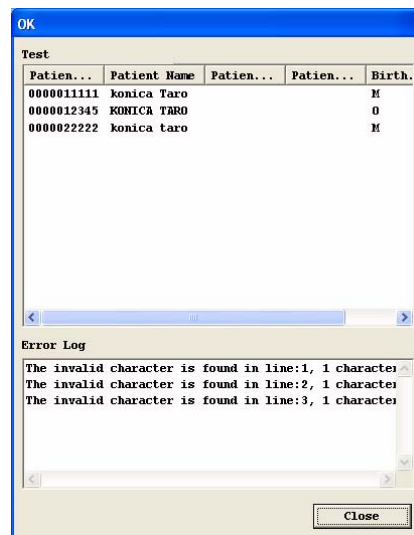


Key/Item	Function
[Refer...]	Displays the reference dialogue,. Select a folder where the patient information file (.dat) is saved.
[Import]	Reads the patient information file, and registers in the patient DB. Progressive bar will be shown to indicate saving while registering.
Import All Files	Check this item to read all files (.dat) stored in the folder that is selected in “Refer...”, and to register in the patient DB.
[Exit]	Exit the “Patient Database”.

13.14.3 “OK (Test Data Base)” Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Console] --> [Patient DB] --> [Register Patient DB] --> [Get Data from DB (Test)]



Key/Item	Function
Imported Test Data Base	Imports the data base, and display the data base classified according to the format.
Error Log	Displays errors when it failed to import the data base according to the format.
[Close]	Exit the “OK (Test Data Base)” screen.

• Import Procedures of Patient DB

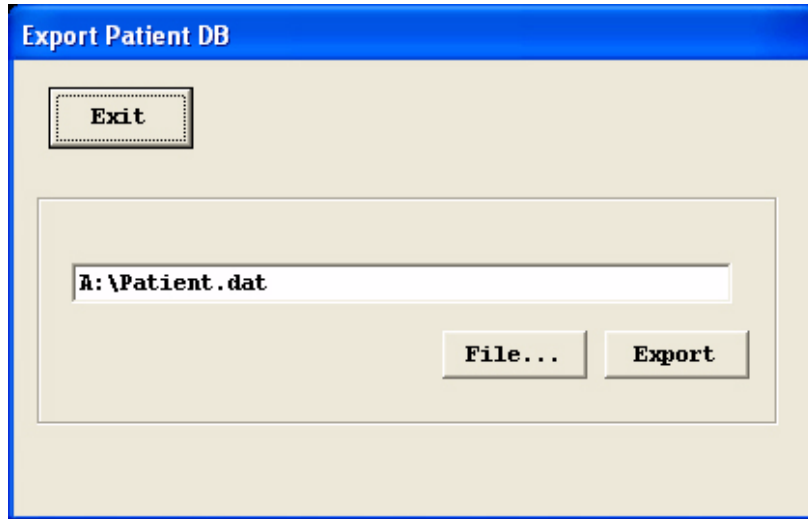
1. Load the Patient DB from the external device, and copy it onto a floppy disk or super disk, etc.
 - When copying, make sure to add “dat” to the file as an extension.
2. Set “DB Form” through “Sex” of “Patient DB Import” screen according to the data form of the patient DB.
3. Click [Save Setting] to save the setting.
4. Insert the floppy disk or floppy disk in which the patient DB has been copied, and click [Get Data from DB(Test)] of “Patient DB Import” screen.
5. A dialogue querying whether to open file will be shown. Select the file that is copied in the step1, and click [Open].
 - Selected and loaded data will be shown on “OK(Test Data Base)” screen.
6. If the data is not read in correct form, check the data format of the copied data, and make necessary changes on settings of “Patient DB Import” screen.
7. Repeat the step4 and 5 until the patient data base is correctly displayed on the “OK(Test Data Base)” screen.
8. Click [Get Data from DB].
9. Click [Refer. . .] of “Patient Database” screen, and select the file that is copied in the step1. Then click [Open].
10. Click [Import] of “Patient Database” screen to register the patient DB in the CS-3’s data base.

13.14.4 “Export Patient DB” Screen

This is a tool with which the patient information stored as Patient DB in the CS-3 can be output in text form.

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure ••• [Console] --> [Patient DB] --> [Export Patient DB] --> [OK]



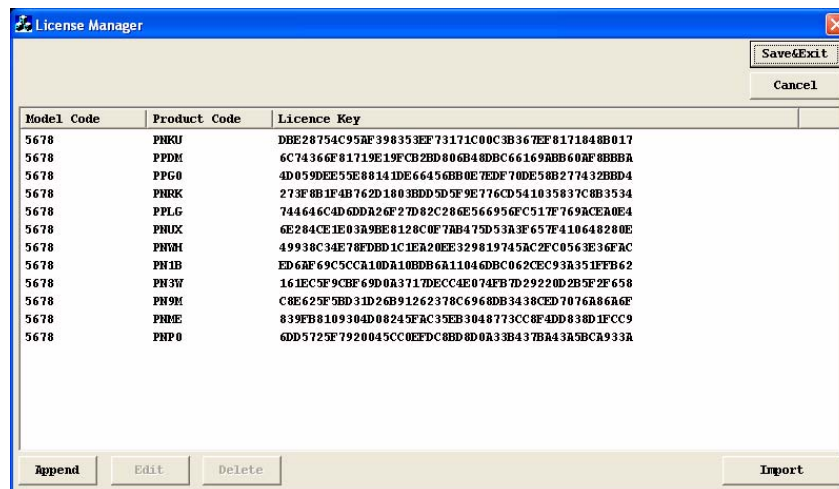
Key/Item	Function
File Name	Displays the file name of the patient DB(text format) with path suffixed.
[File. . .]	Opens the dialogue, specify the file name and destination to export the file.
[Export]	Executes the export of the file.
[Exit]	Exit the “Export Patient DB” screen. “Export Patient DB” screen automatically closes when [Export] is executed and completed.

13.15 [Console] >[License], [File Import], [Upgrade]

13.15.1 “License Manager” Screen

- Registers the license key with which the CS-1/CS-3 application is upgraded with additional software.

Display Procedure • • • • [Console] --> [License]

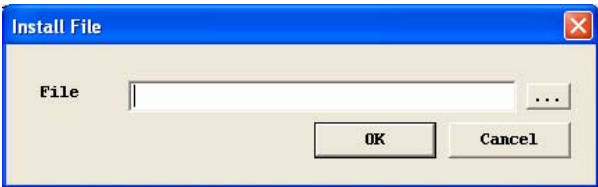


Key/item	Function
[Append]	Open the “License Regist/Revise” dialogue, and input the Model Code, Product Code and License Key of the software that should be added to the CS-3.
[Edit]	Open the “License Regist/Revise” dialogue, and edit the Model Code, Product Code and License Key of the registered software
[Delete]	Deletes the Model Code, Product Code and License Key of the selected software.
[Save & Exit]	Saves the setting and exits the “License Manger” screen.
[Cancel]	Exit the “Install File” screen without selecting the file.

13.15.2 “Install File” Screen

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Console] --> [File Import]



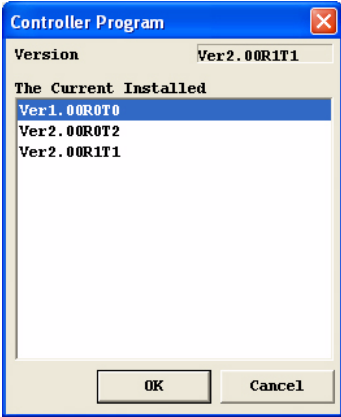
Key/item	Function
[...] (reference key)	Select the folder where the install program resides. Normally select from “A” drive (floppy disk drive).
[OK]	The selected program will be decompressed.
[Cancel]	Exit the “Install File” screen without selecting the file.

<Important> Selecting the file and clicking [OK] on this screen will decompress the file stored in the CD-ROM and copy it on the CS-3’s HDD. This, however does not update the program software. Always use “Control Program” screen to implement the program alteration (version change) .

13.15.3 “Control Program” Screen

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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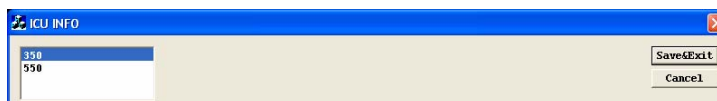
Display Procedure •••• [Console] --> [Upgrade]



Key/Item	function
The current installed	A version list for the CS-1/CS-3 application and Service Tool software that are installed on the CS-3. Switches to the version that is selected here.
[OK]	Executes the change of the version that is selected in the list.
[Cancel]	Exit the “Control Program” screen without installing the program.

13.16 [Reader] > [Reader] > "Dedicated Reader"

13.16.1 Common Displays of "ICU INFO" Screen

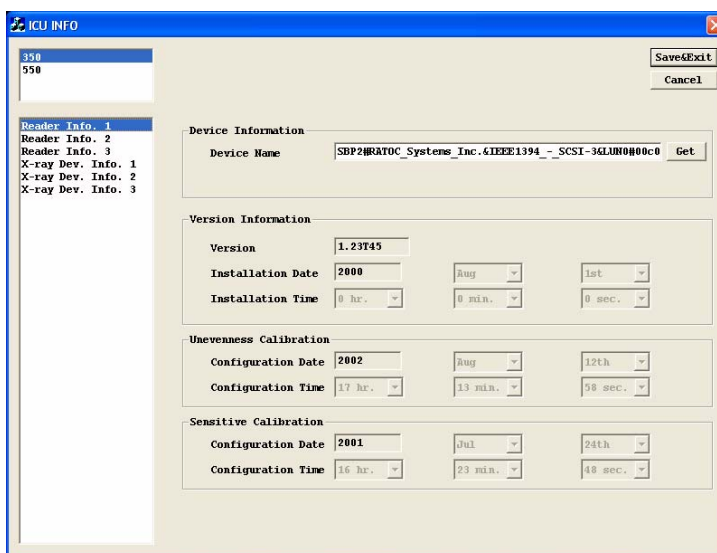


Key/Item	Function
Reader Device Selection (upper left menu)	Select the reader device name to be set.
[Save & Exit]	Click this button to exit from "ICU Info" screen after saving the setting.
[Cancel]	Click this button to exit from "ICU Info" screen without saving the setting.


13.16.2 "ICU INFO • Reader Info. 1" Screen

Start up from the system menu	Start up from the REGIUS Service Screen
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Display Procedure • • • • [Reader] --> [Reader] --> "dedicated reader" --> (select "Reader Info. 1" in the left menu)



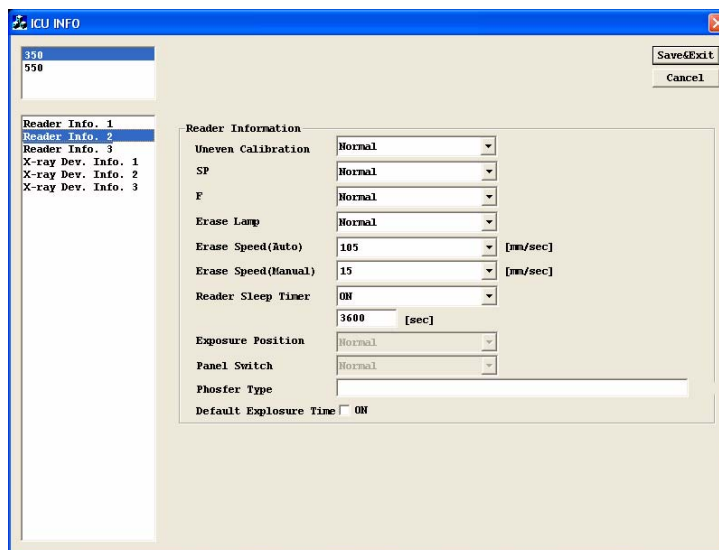
Key/Item	Function
Device Information	
Device Name	Displays the number that is identical to the SCSI converter incorporated in the connected reader device. <ul style="list-style-type: none"> Input the device name with max. 2 byte x 64, 1 byte x 128 characters.

Key/Item	Function
[Get]	<ul style="list-style-type: none"> Clicking on this button will show the dialogue for confirming the reader device.  <ul style="list-style-type: none"> Clicking on the device name displayed on the dialogue will light all LEDs on the reader's operation panel. Clicking on [OK] will associate the device name with the reader device. Carry out this procedure when there are 2 or more reader devices are connected.
Version Information	Displays the version of the reader device, and the date/time of the last installation.
Uneven Calibration	Displays the date/time when the uneven calibration was made last.
Sensitive Calibration	Displays the date/time when the sensitivity calibration was made last.

13.16.3 "ICU INFO • Reader Info. 2" Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure • • • • [Reader] --> [Reader] --> "dedicated reader" --> (select "Read Info. 2" in the left menu)

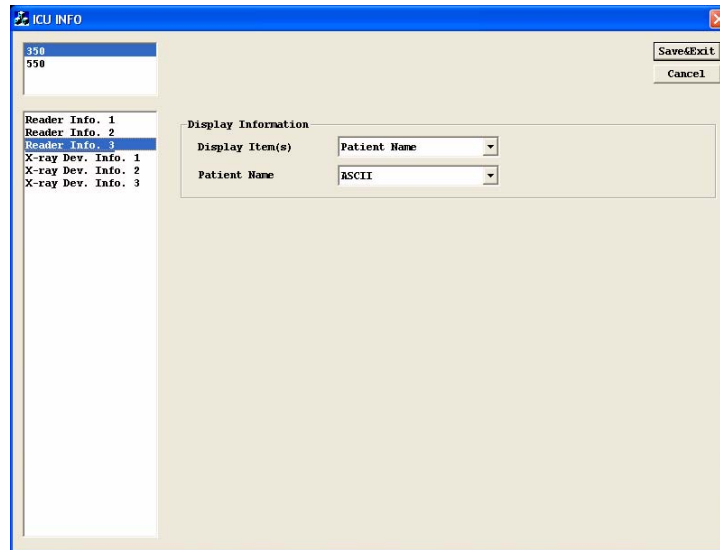


Key/Item	Function
Reader Information	
Uneven Calibration	Select the uneven calibratin type. Normal : Implement the normal one-dimensional calibration. 2-Dim : Implement the 2-dimension calibration.
SP	Select "Normal" to apply an unevenness correction. (default : Normal)
F	
Erase Lamp	Select the erasing lamp from the following for the time of executing the read command, erase command, restore command. ● "OFF", "Lamp A only", "Lamp B only", "Normal"
Erase Speed(Auto)	Select from "15", "22", "35", "56", "105" (mm/sec) the erasing speed when the restore command is executed. (default: 105mm/sec)
Erase Speed(Manual)	Select from "15", "22", "35", "56", "105" (mm/sec) the erasing speed when the erase command is executed. (default: 15mm/sec)
Reader Sleep Timer	Select the sleep mode from the following. (default : OFF/600) ON • • Switches to the sleep mode when the idling time exceeds the time that is input in the "Time" box. OFF • • Does not switch to the sleep mode.
Exposure Position	Not to be used.
Panel Switch	Not to be used .
Phosphor Type	Normally not used.
Default Exposure Time	Select whether the X-ray exposure time measured on the REGIUS 350 shall be reflected to the additional information of stamp. When it is ON, the information will not be reflected.

13.16.4 "ICU INFO • Reader Info. 3" Screen

Start up from the system menu	Start up from the REGIUS Service Screen
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Display Procedure •••• [Reader] --> [Reader] --> "dedicated reader" --> (select "Reader info.3" in the lower left menu)

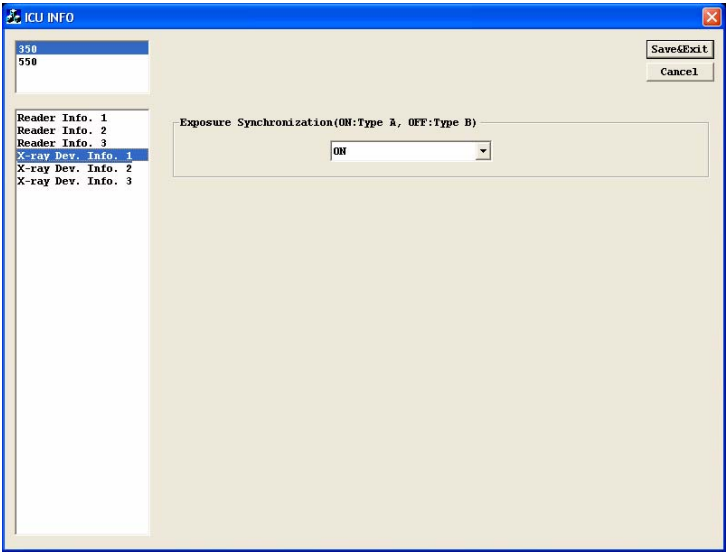


Key/Item	Function
Display Information	
Display Item(s)	Select the items to be displayed on the LCD panel from the following. <ul style="list-style-type: none"> • "Patient Name", "Patient ID", "Patient Name + Patient ID"
Patient Name	Only ASCII (fixed) is available. <ul style="list-style-type: none"> • "ASCII"

13.16.5 "ICU INFO • X-Ray Dev. Info. (1)" Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader] --> "dedicated reader" --> (select "X-ray Dev. Info. (1)" in the lower left menu)

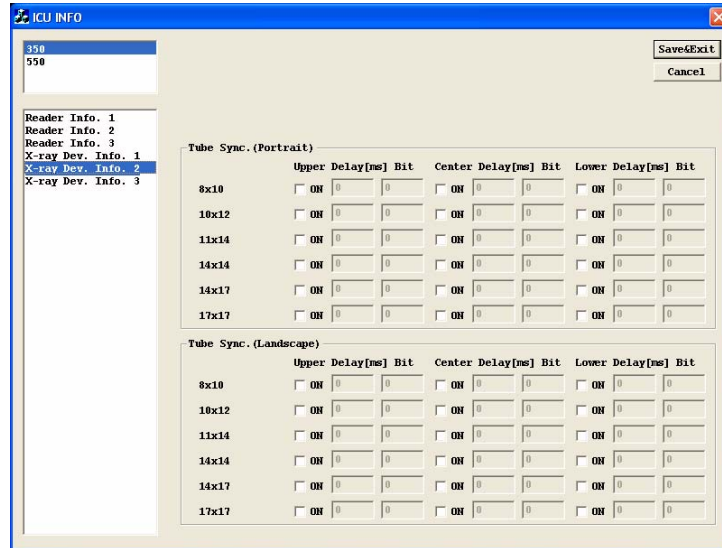


Key/Item	Function
Exposure Synchronization	Select "ON" to link to the X-ray Exposure. (default : ON)

13.16.6 "ICU INFO • X-Ray Dev. Info. (2)" Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader] --> "dedicated reader" --> (select "X-ray Dev. Info. (2)" in the lower left menu)

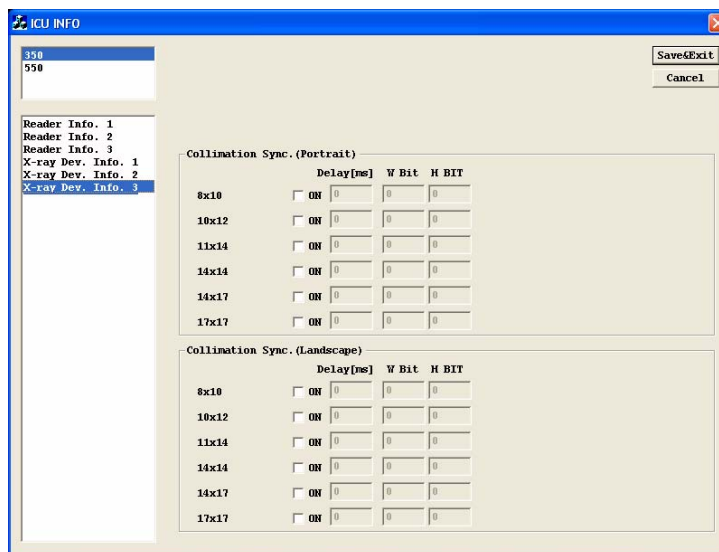


Key/Item	Function
Tube Sync. (Portrait)	<p>Set this item when using the "X-ray Tube Pos. Correction" (option).</p> <ul style="list-style-type: none"> • Select (check) the read size for the position (Upper/Center/Lower) that should be linked with X-ray exposure. • Set the delay (ms) and bit value for each read size that is selected.
Tube Sync. (Landscape)	<p>Set this item when using the "X-ray Tube Pos. Correction" (option).</p> <ul style="list-style-type: none"> • Select (check) the read size for the position (Upper/Center/Lower) that should be linked with X-ray exposure. • Set the delay (ms) and bit value for each read size that is selected.

13.16.7 "ICU INFO • X-Ray Dev. Info. (3)" Screen

Start up from the system menu	Start up from the REGIUS Service Screen	●
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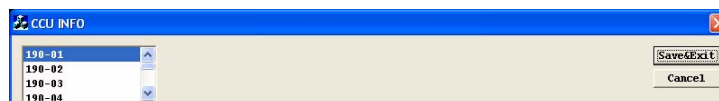
Display Procedure • • • • [Reader] --> [Reader] --> "dedicated reader" --> (select "X-ray De.Info. (3)" in the lower left menu)



Key/Item	Function
Collimation Sync. (Portrait)	<p>Set this item when using the "X-ray Tube Irr. Field Aperture" (option).</p> <ul style="list-style-type: none"> • Select (check) the read size that should be linked to the orientation (Portrait/Landscape). • Set the delay (ms) and bit value for each read size that is selected.
Collimation Sync. (Landscape)	<p>Set this item when using the "X-ray Tube Irr. Field Aperture" (option).</p> <ul style="list-style-type: none"> • Select (check) the read size that should be linked to the orientation (Portrait/Landscape). • Set the delay (ms) and bit value for each read size that is selected.

13.17 [Reader] > [Reader] > "Cassette Reader"

13.17.1 Common Displays of "CCU INFO" Screen

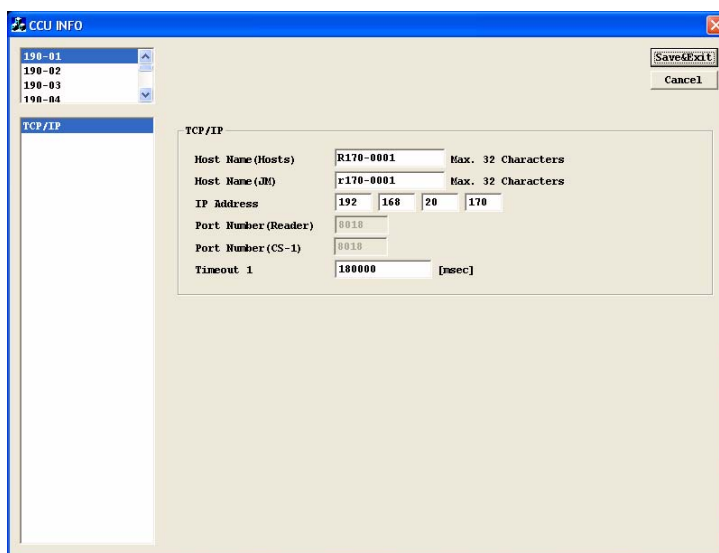


Key/Item	Function
Reader Device Selection (upper left menu)	Select the reader device name to be set when there are several readers are connected. Related Settings;
[Save & Exit]	Click this button to exit from "CCU Info" screen after saving the setting.
[Cancel]	Click this button to exit from "CCU Info" screen without saving the setting.

13.17.2 "CCU INFO • TCP/IP" Screen

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Reader] --> select "Cassette Reader" --> (select "TCP/IP" in the lower left menu)



Key/Item	Function
TCP/IP	
Host Name	Input the host name of REGIUS 170 using 1 byte x 32 characters. (default : R170-0001)
Host Name (JM)	Input the host name of REGIUS 170, which the JM uses, using 1 byte x 32 characters. (default : r170-0001)
IP Address	Input the REGIUS 170's IP address. (default : 192.168.20.170)
Port Number (Reader)	Input the REGIUS 170's port No. (default : 8018)
Port Number (CS-1)	Input the CS-3's port No. (default : 8018)
Timeout 1	Do not change unless otherwise instructed. (default : 180000)

13.18 [Reader] > [Device Setup]

13.18.1 “ICU Device Command Read/Write” Screen (for dedicated reader device)

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Device] --> select “Dedicated reader”

Key/Item	Function																		
Offset X, Y	Input the read origin.																		
Timer 1	Input the time out for the duration from the X-ray-ready signal (irr. SW 1st push) ON to the X-ray-start signal (irr. SW 2nd push) ON. (normally input 1200, i.e. default)																		
Timer 2	Input the time out for the duration from the X-ray-ready signal (irr. SW 1st push) ON to the X-ray-on signal ON. (normally input 1200, i.e. default)																		
Timer 3	Input the time out for the case that any of X-ray-on, X-ray-start, X-ray-ready signal does not turn OFF after the X-ray-on signal turns ON. (normally input 1200, i.e. default)																		
Timer 4	Input the time out for the case that the X-ray-on signal does not turn OFF due to no signal from the CS-3 after the X-ray-on signal turns ON. (normally input 1200, i.e. default)																		
Timer 5 ~ 10	Do not change unless otherwise instructed. (default : 0)																		
PLL Clock	Input the PLL pixel clock value in decimal. <table border="1"> <thead> <tr> <th>PLL Setting (decimal)</th><th>Scan Frequency (MHz)</th></tr> </thead> <tbody> <tr><td>14</td><td>12.6736</td></tr> <tr><td>15</td><td>12.6333</td></tr> <tr><td>16</td><td>12.8231</td></tr> <tr><td>17</td><td>12.8666</td></tr> <tr><td>18</td><td>12.9078</td></tr> <tr><td>19</td><td>12.9333</td></tr> <tr><td>20</td><td>12.9861</td></tr> <tr><td>21</td><td>13.0000</td></tr> </tbody> </table>	PLL Setting (decimal)	Scan Frequency (MHz)	14	12.6736	15	12.6333	16	12.8231	17	12.8666	18	12.9078	19	12.9333	20	12.9861	21	13.0000
PLL Setting (decimal)	Scan Frequency (MHz)																		
14	12.6736																		
15	12.6333																		
16	12.8231																		
17	12.8666																		
18	12.9078																		
19	12.9333																		
20	12.9861																		
21	13.0000																		
Calib. Times	Input the frequency of calibration.																		
Allowance	Input the allowance of calibration.																		
Flash Int.	Input the flash memory interval.																		
PS Waiting Time	Input the PS mode time (min).																		
[Save & Exit]	Update the device parameter stored (back up) in the CS-3 to the current one displayed on the screen.																		
[Cancel]	Exit from the screen without changing the device parameter.																		

Note : The timer input boxes are tagged with numbered as ; upper row from left to right 1 ~ 5, lower row from left to right 6 ~ 10.

13.18.2 “Device Set” Screen (for REGIUS 190/170)

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Device] --> (select the reader name from the “Reader Device” screen)

Key/Item	Function
PLL	
Calculate x1.0 PLL from x1.5 PLL	Check to automatically calculate the PLL for mammo exposure (High Res.) from the PLL for standard exposure.
Regular (x1.5 speed)	Input the PLL pixel clock for the pixels of main scan direction of High Res. exposure. (standard : 3216) <ul style="list-style-type: none"> The relation between the pixels and the PLL set value is roughly expressed as ; $\text{Pixels (87.5}\mu\text{m)} = \text{PLL Set Value} \times 1.3$
Mammo (x1.0 speed)	Input the PLL pixel clock for the pixels of main scan direction of Mammo. exposure. (standard : 2222) <ul style="list-style-type: none"> When “Calculate x1.0 PLL from x1.5 PLL” is disabled, input can be made.
Reader Start Point	
Resolution	
Sign	Select the shift direction of the read start position. <ul style="list-style-type: none"> + : Toward H_sync - : Recedes from H_sync
Pixels (High Res.)	Input the shift amount of read start position by “pixel count x 2”.
[Send]	Sends the set up value to REGIUS 190/170.
[Table Refer...]	Reads and displays the data stored in SCB (CF) of REGIUS 190/170.

- **How to set the PLL**

- Expose the 14" x 17" (14" x 14") cassette to produce solid density using high resolution mode, measure the size of fluorescent substance using an inspection tool.
- Change the PLL so that the measured size of the fluorescent substance falls within the allowance (4096 pixels -5 ~ +10).

- **How to adjust the read start position**

- Expose the 14" x 17" cassette in high resolution mode, and measure the blank margin of the plate of the H_sync using an inspection tool.
- Set the code and pixel count so that the measurement falls within the allowance (60 ~ 70 pixels).

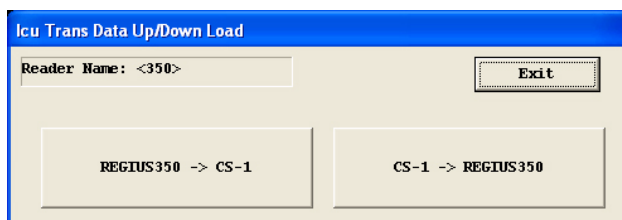
<Note> When the "PLL" setting, "Read Start Position" is changed, always perform unevenness calibration.

13.19 [Reader] > [PCB]

13.19.1 “Icu Trans Up/Down Load” Screen (for dedicated reader device)

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [PCB] --> (select the reader from the “Reader Device” screen)



Key/Item	Function
[REGIUS 350 -> CS-1]	<p>Upload and store the data stored in the flash ROM on the main board of the dedicated reader to the CS-3.</p> <p>Upload timing :</p> <ul style="list-style-type: none"> • Just before saving the setting for the overall system after confirming that there is no problem in image quality or operation at the time of installation. • When the correction data is updated by implementing the procedures in "8.2 Unevenness Calibration", 8-8 or "9.2 2-Dimensional Calibration" 9-7 . • When the firmware of the reader device is updated.) • When the device parameter is updated according to "13.18.1 “ICU Device Command Read/Write” Screen (for dedicated reader device) ", 13-110, and [Save & Exit.] is clicked.
[CS-1 -> REGIUS 350]	<p>Download the setting stored in the CS-3 to the main board of the dedicated reader device.</p> <p>Download timing :</p> <ul style="list-style-type: none"> • After changing the main board of the dedicated reader device, and confirming the initialization (ready to expose) of the reader device is normally completed.
[Exit]	Exit the “Icu Trans Data Up/Down Load” screen.

- Data to be stored
 - Unevenness correction data(2K/4K)
 - Sensitivity correction data
 - Filter coefficient (2K/4K)
 - Reader logs
 - PMT gain table
 - BOOT/image process/control program
 - Device parameter (refer to "13.18.1 “ICU Device Command Read/Write” Screen (for dedicated reader device) ", 13-110)

• Upload destination of the Data

The data uploaded onto the CS-3 will be stored in the following directory.

C : \konica\CS-3\Env\Data\Correct

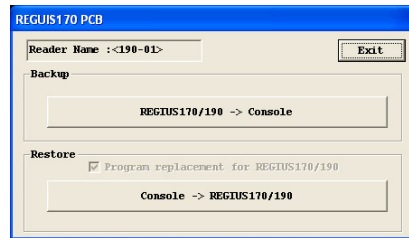
• Saving and restoring the data

Selecting the “Corr. Data” in "13.26.1 “System Setup File Save” Screen", 13-136 enables to save in the super disk. Use procedures in "13.27.1 “System Setup File Restore” Screen", 13-140 to restore the data.

13.19.2 “REGIUS 190/170 PCB” Screen (for REGIUS 190/170)

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [PCB] --> (select the reader from the “Reader Device” screen)



Key/Item	Function
REGIUS 170 -> CS-1	Upload and save the data in REGIUS 190/170's SCB (CF) onto the CS-3.
CS-1 -> REGIUS 170/190	Download the data stored in the controller onto the REGIUS 190/170's SCB (CF).
[Exit]	Exit the “Change Board” screen.

- Data to be stored
 - Shading file (shading data, unevenness correction data)
 - Sensitivity correction data
 - PLL adjusting value
 - Start origin
 - Various setting data for network
 - Mechanical counter info.

13.20 [Reader] > [Std Current]

13.20.1 “Self Test 2” Screen (for REGIUS 350)

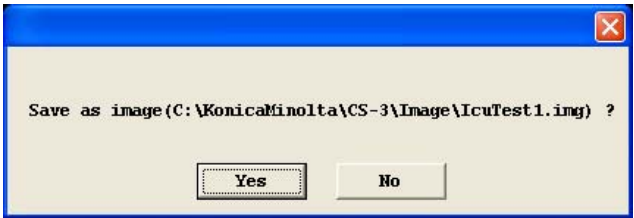
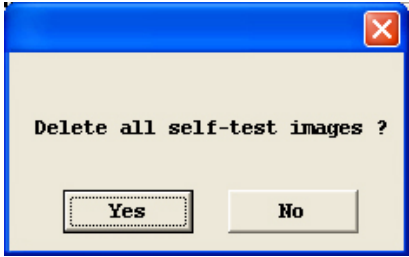
Creates a dummy image by generating a sample read signal on the main board. Use this function to check if the digital operation for reading is properly functioning.

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Std Current] --> (select the reader from the “Reader Device” screen)



Key/Item	Function
Read Condition	
Resolution	Select the resolution for dummy reading from the following. <ul style="list-style-type: none">• “1750”, “875”
Current Value	Select the current value for dummy reading from the following. <ul style="list-style-type: none">• “1μA”, “100μA”
Uniformity	Select the unevenness correction for dummy reading from the following. <ul style="list-style-type: none">• “None”, “SP Only”, “F Only”, “All”
PMT Gain	Input the photomultiplier gain value for dummy reading. (default : 39000)

Key/Item	Function
[Execute]	<p>1) Upon clicking, dummy reading starts, and the reading status will be shown on the operation status dialogue.</p> <p>2) When the dummy reading is normally completed, a dialogue confirming the storage of the read image will be shown.</p>  <ul style="list-style-type: none"> • When an error occurs during the dummy reading, an error message will be shown. <p>3) Click "Yes" to save the image.</p> <ul style="list-style-type: none"> • When the dummy reading is normally completed, a solid image that is read with the preset reference currency will be saved. • The image is stored in the same folder as that for the normal reading. • File names are automatically created for each read as "Icu Test1.img", "Icu Test2.img", "Icu Test3.img". (up to 999) • The stored image data, similar as the normal image, can be examined using the procedures in "13.32 [Analyze] > [Image] (exam. tool)", 13-153).
[Deleting All Test Files]	<p>1) Clicking this button will display a dialogue confirming the deletion of the dummy image.</p>  <p>2) Clicking "Yes" will delete only the dummy images at one time.</p>
[Exit]	Switches to [Reader] without implementing the dummy reading.

13.20.2 “Standard Current” Screen (for REGIUS 170)

Start up from the system menu	Start up from the REGIUS Service Screen
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Display Procedure •••• [Reader] --> [Std Current] --> (select the reader from the “Reader Device” screen)

Standard Current

Reader Name :<190-01>

Reading Condition

Image Size175µm(General Std)

Standard CurrentALL

UnevennessOFF

Delete All Test

ExecutionExit

Key/Item	Function
Reading Condition	
Image Size	Select the resolution for dummy reading from the following. <ul style="list-style-type: none">• “175µm (General Std)”, “87.5µm (Gen. H/Mam. Std)”, “43.75µm (Mammo High)”
Standard Current	Select the current value for dummy reading from the following. <ul style="list-style-type: none">• “0nA”, “50nA”, “500nA”, “50000nA”, “All”.
Unevenness	Select the unevenness correction for dummy reading from the following. <ul style="list-style-type: none">• “ON”, “OFF”.
[Delete All Test]	1) Clicking on this button will display a dialogue confirming the deletion of the dummy image. 2) Clicking “Yes” will delete only the dummy images at one time.
[Execution]	Execute dummy reading with the standard current.
[Exit]	Switches to “Reader” screen without implementing the dummy reading.

13.21 [Reader] > [Uniformity Calibration]

13.21.1 “Uniformity Config.” Screen (for dedicated reader)

Start up from the system menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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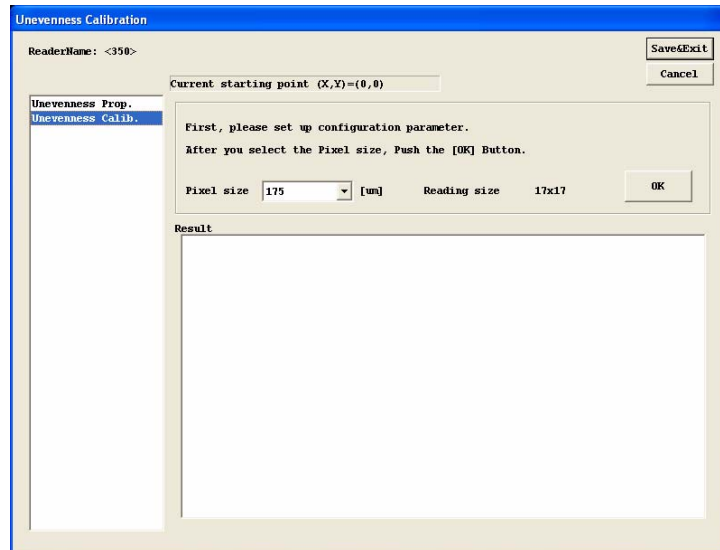
Display Procedure •••• [Reader] --> [Uneven. Cal.] --> (select the reader from the “Reader Device” screen) --> (select “Uniformity Config.” in the lower left menu)

Key/Item	Function
SMOOTH	Default : 0 Normally not to change
P_HOSEI	Default : 1 Normally not to change
KAGEN	Default : 0 Normally not to change
S_RIMIT	Default : 512 Normally not to change
F_LIMIT	Default : 512 Normally not to change
P_LIMIT	Default : 64 Normally not to change
S_CUT	Default : 40 Normally not to change
F_CUT	Default : 40 Normally not to change
P_AREA	Default : 205 Normally not to change
WARU	Default : 1 Normally not to change
WIDTH	Default : 2430 Normally not to change
Da175	Default : 0 Normally not to change
Db175	Default : 0 Normally not to change
Da875	Default : 0 Normally not to change
Db875	Default : 0 Normally not to change
[Save & Exit]	Exit the “Uniformity Config.” screen after sending the uniformity config. setting to the reader device.
[Cancel]	Exit “Uniformity Config.” screen without updating the settings.

13.21.2 “Uniformity Calib.” Screen (for dedicated reader)

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Uneven. Cal.] --> (select the reader from the “Reader Device” screen)--> (select “Uniformity Calib.” in the lower left menu)



Key/Item	Function
Pixel Size	Select the pixel size from “175”, “87.5” for the unevenness calibration. The read size is fixed at 17” x 17”.
[OK]	Using the selected pixel size, carries out the unevenness calibration.
Result	The result of calibration will be shown.
[Save & Exit]	Exit the “Uniformity Config.” screen after sending the result of uniformity configuration to the reader device.
[Cancel]	Exit “Uniformity Config.” screen without reflecting the result.

13.21.3 “Uniformity Corr.” Screen (for REGIUS Model 190/170)

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Uneven. Cal.] --> (select the reader from the “Reader Device” screen)

Key/Item	Function
Calibration	
Resolution	Select from “87.5μm” and “175μm”.
PMT	Use the default (2200)
Barcode Registration	Use this function when the barcode registration is employed.
[OK]	Starts uniformity correction.
Create Shipping Table (Factory use only)	Not to be used at the user. (do not tick the check).
Result	Displays the result of uniformity correction.
[Table Control]	Displays the information of uniformity calibration.
[Text File]	Exports the result of uniformity calibration as a file.
[Exit]	Exits the uniformity correction.

- Correction data

10 tables of correction data for each of 6 types, i.e. “Normal Standard (175μm)”, “Normal High Res (87.5μm)”, “Mammo Standard (87.5μm)” per Pv (plate version) can be registered. (total 60 tables) However, one table is for the use at the factory, in fact, there are 54 tables in total is available.

- Plate size

For calibration purpose, use the largest size that is actually used at the facility. (except mammography use). For the sizes larger than the one used for calibration, the calibrated data is no more valid. As an example, the case where the calibration is made using Pv00 + 14” x 17”, Pv01 + 10” x 12” is described in the following table.

Read Plate Size	Plate Version	Calibration Data to be applied
8" x 10"	Pv01	Pv01+ 10" x 12"
14" x 17"	Pv01	Pv00 + 14" x 17"
10" x 12"	Pv00	Pv00 + 14" x 17"

- For mammography size, calibration can be done using a mammography cassette. (automatically recognized at the time of barcode reading)
- Notes when implementing the uniformity calibration.
- Use the X-ray dose with bulb voltage 80kV, and mAs value to generates the signal value within the range of 1500 ~ 3000STEP. Distance between the plate and bulb should be 2m or more.
- Calibration of the mammography-sized plate should be implemented at the high resolution (87.5μm). Use the tungsten lamp, and use the exposure condition identical to that for a regular plate.
- When the optical unit is replaced, delete all of old calibration data table before starting the calibration.

13.22 [Reader] > [Sensitivity]

13.22.1 “PMT Gain Calc.” Screen (for REGIUS Model 350)

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Sensitivity] -->(select the reader from the “Reader Device” screen)--> (select “PMT Gain Calc.” in the lower left menu)

Sensitivity Calibration

Reader Name: <350> Save&Exit Cancel

Current starting point (X,Y)=(0,0)

PMT Information

Serial No.

PMT Data

Voltage [V]	0	E+	0	800	0	E+	0
400	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
500	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
600	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
700	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Calibration Info.

Exposure Dose	<input type="text" value="2.1"/>	S200 Signal	<input type="text" value="1536"/>
Transmission of Grid	<input type="text" value="1"/>	S200 Exposure Dose	<input type="text" value="1"/>
PMT Gain for Calib.	<input type="text" value="30000"/>	S200 PMT Gain	<input type="text" value="0"/>
PMT Gain Result	<input type="text" value="0"/>	S200 PMT Gain Result	<input type="text" value="0"/>

Correlation Coefficients = [0]

0=[<input type="text"/> 0]	1=[<input type="text"/> 0]	2=[<input type="text"/> 0]	3=[<input type="text"/> 0]	4
5=[<input type="text"/> 0]	6=[<input type="text"/> 0]	7=[<input type="text"/> 0]	8=[<input type="text"/> 0]	5
10=[<input type="text"/> 0]	11=[<input type="text"/> 0]	12=[<input type="text"/> 0]	13=[<input type="text"/> 0]	14
15=[<input type="text"/> 0]	16=[<input type="text"/> 0]	17=[<input type="text"/> 0]	18=[<input type="text"/> 0]	15
20=[<input type="text"/> 0]	21=[<input type="text"/> 0]	22=[<input type="text"/> 0]	23=[<input type="text"/> 0]	24
25=[<input type="text"/> 0]	26=[<input type="text"/> 0]	27=[<input type="text"/> 0]	28=[<input type="text"/> 0]	25
30=[<input type="text"/> 0]	31=[<input type="text"/> 0]	32=[<input type="text"/> 0]	33=[<input type="text"/> 0]	34

Calc.

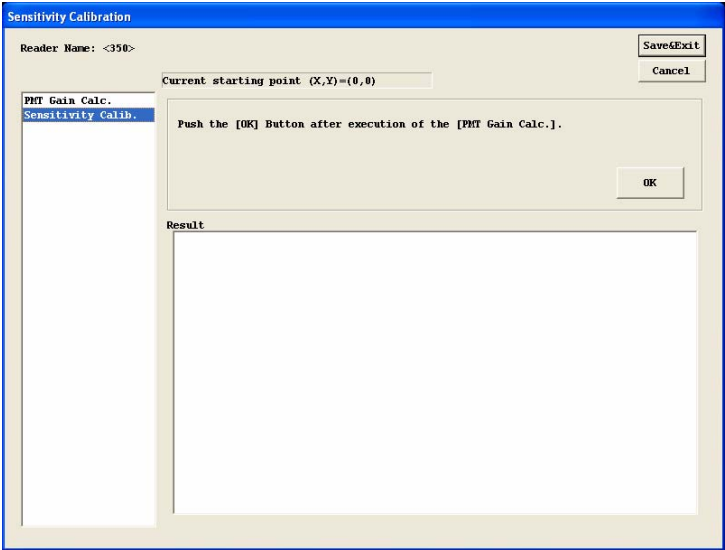
Key/Item	Function
PMT Information	Input the value in the input box for serial No. and impressed voltage, which is listed on the data sheet attached to the photomultiplier.
Calibration Info.	
Exposure Dose	Input the X-ray dose that is measured in advance.
Transmissivity of Grid	Input the grid transparency in numbers. <ul style="list-style-type: none"> Input “0.5” when a grid is present. Input “1.0” when no grid is present.
PMT Gain for Calib.	Input the PMT gain set value in number when calibration is carried out.
PMT Gain Result	Input the PMT gain in number when calibration is carried out.
S200 Signal	Input the expected value of S200 signal.
S200 Exposure Dose	Input the expected value of S200 reference irradiation dose.
S200 PMT Gain	Input S200PMT gain set value in number.
S200 PMT Gain Result	Input S200PMT gain in number.
[Calc.]	Calculates the photomultiplier’s gain based on the setting. The calculated result will be shown in the left column.
Result Report Field	Displays the calculated result of the PMT gain.
[Save&Exit]	Exit the “PMT Gain Calc.” screen after sending the calculated result of the PMT gain. to the reader device.
[Cancel]	Exit the “PMT Gain Calc.” screen without updating the calculated result of the PMT gain.

13.22.2 “Sensitivity Calibration” Screen (for REGIUS Model 350)

<Note> : Be noted that the sensitivity calibration must always be implemented after completing the PMT gain calculation.

Start up from the system menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Sensitivity] --> (select the reader from the “Reader Device” screen) --> (select “Sensitivity Calib.” in the lower left menu)



Key/Item	Function
[OK]	Executes the sensitivity calibration based on the calculated result of the photomultiplier gain.
Result	Displays the calculated result.
[Save&Exit]	Exit the “Sensitivity Calibration” screen after sending the calibrated result to the reader device.
[Cancel]	Exit the “Sensitivity Calibration” screen without updating the calibrated result.

13.22.3 “Sensitivity Corr.” Screen (for REGIUS Model 190/170)

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Sensitivity] --> (select the reader from the “Reader Device” screen)

Key/Item	Function
Calibration	
Auto Create	Selecting this option enables to automatically create the calibration data for low resolution using calibration data for high resolution.
Resolution	When “Auto Create” is not selected, select the pixel size for sensitivity calibration. <ul style="list-style-type: none"> For regular cassette, select from the standard (175μm) or high resolution mode (auto-create)(87.5μm). For mammo, always select “High Res.” or “Mammo High Res”..
Exposure Doxe	Input the irradiation dose. <ul style="list-style-type: none"> 8 ~ 20mR (10mR or higher is recommended)
Sensitive	Input “0.94” for regular cassette, “0.91” for mammo cassette. <ul style="list-style-type: none"> In “Auto Create” mode, sensitivity data for low resolution will be calculated using these settings.
Barcode Registration	Use only for “barcode Registration” is selected.
[OK]	Executes the sensitivity calibration.
Create Shipping Table (Manufacturer use only)	Not to be used at the user. (do not tick the check).
Low	QR value of the low sensitivity region that shall be calibrated. (default : 125)
Standard	QR value of the normal sensitivity region that shall be calibrated. (default : 250)
High	QR value of the high sensitivity region that shall be calibrated. (default : 500)
Result	Displays the result of uniformity correction.
[Table Control]	Displays the correction data for the reader device. <ul style="list-style-type: none"> Lists all history of calibrations with Plate version (Pv), size, cassette in the past.
[Text File]	Exports the result of calibration result as a file.
[Exit]	Exits the sensitivity correction.

- Sensitivity calibration
- Regular (87.5 μ m, 175 μ m) or mammography will be automatically recognized by reading the barcode on the cassette.
- Selecting “Auto-Create Mode” will implement the calibration by reading at high resolution, and automatically create the sensitivity data for low resolution. (calibration completes with one exposure)
- Use 14” x 17” film for regular (87.5 μ m, 175 μ m) . (use the largest size that is actually used at the facility)
- Standard Exposure Dose : 10mR or higher is recommended (use the exposure dose at which the x-ray irradiation becomes stable)
- Because the mammo plates have low sensitivity compared to regular plates, input in the “PMT” of the “Sensitivity Correction” screen, the measured value x “ α ” so that it falls within the high voltage range of REGIUS 190/170. Refer to "8.3.2 Sensitivity Calibration of Mammo Cassette." for details.
- Notes when implementing the sensitivity calibration of mammo cassette.

Because the sensitivity of the mammography plate is lower than the regular plate, calibration needs to be carried out following the procedures below in order to bring the sensitivity level to suit to the high voltage range of the REGIUS 190/170.

- Expose the plate with 20 ~ 30mR of exposure dose at the plate surface. Input in the “PMT” of “Sensitivity Calib” screen the value calculated by actually measured X-ray dose multiplied by coefficient “ α ” when calibrating. (refer to "8.3.2 Sensitivity Calibration of Mammo Cassette.")
- Use the same X-ray bulb as that for the regular plate. (tungsten bulb)

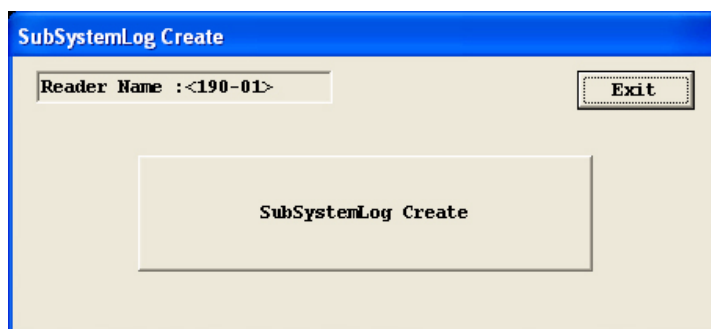
13.23 [Reader] > [Sub Logs]

13.23.1 “SubSystemLogs Create” Screen (for REGIUS Model 190/170)

- Creates the sub system logs for the REGIUS 190/170 that is selected in the “Reader Select” screen.

<Important> This screen is only useful to create the sub system logs on the REGIUS 190/170. Use the “Reader Logs” screen (REGIUS 190/170) to download the logs.

Display Procedure •••• [Reader] --> [Sub Logs]



Key/Item	Function
[SubSystemLog Create]	Creates sub system logs on the REGIUS 190/170.
[Exit]	Exits the “Sub Logs Create” screen.

- SubSystemLog is the log produced from the signal process firmware on the MCB2/MCB and SCB2/SCB of the REGIUS 190/170.

13.23.2 “Reader Log Info. • Operation Info.” Screen (for REGIUS Model 350)

Start up from the sytem menu	Start up from the REGIUS Service Screen
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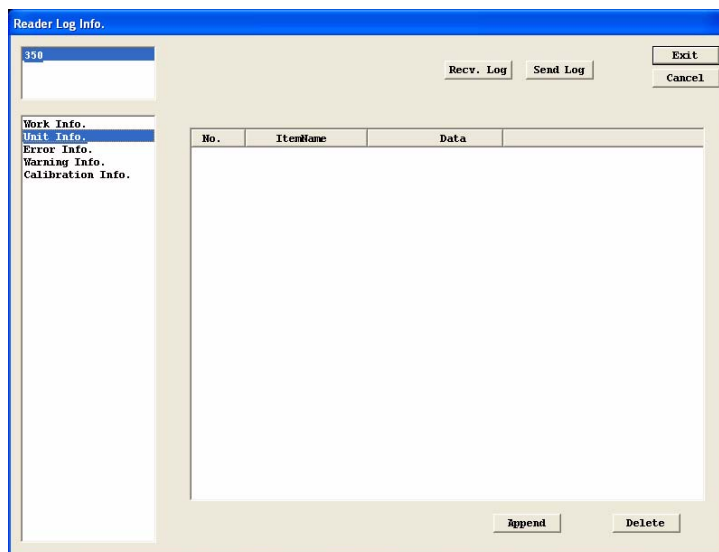
Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen) --> select “Work Info.” in the lower left menu

Key/Item	Function
Reader Select Menu	Select the reader device from which the logs shall be collected.
[Get Log]	Receives logs from the reader device.
[Send Log]	Sends the settings to the reader device.
[Write Complete]	Saves the settings and exits the “Reader Log Info” screen.
[Cancel]	Exits the “Reaer Log Info” screen without saving the settings.
Work info.	
Serial No.	Serial No. of the reader device. Input the number using 1 byte x 16 characters.
Date of Establishment	Set at the factory when shipped.
Date of Installation	Set at the time of installation.
Reading Times	Displays the read counts.
Total Reading Times	Displays the total read counts including test reading, etc.
Total Exposure Dose	Displays the total exposure dose including test reading, etc.
Erase times	<ul style="list-style-type: none"> Displays the erase counts. Input “0” when the erase lamp is replaced.
Total Erase Times	Displays the total erase counts including test reading, etc.
Polygon ON Time	<ul style="list-style-type: none"> Displays the time of the polygon mirror being energized. Input “0” when the optical unit is replaced.
Total Polygon ON Time	Displays the total time of the polygon mirror being energized, including tests.

13.23.3 “Reader Log Info. • Unit Info.” Screen (for REGIUS Model 350)

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen)--> select “Unit Info.” in the lower left menu



Key/Item	Function
Unit Info. List	Displays the unit information list. <ul style="list-style-type: none"> Unit code, Unit ser. No., replaced date.
[Append]	<ul style="list-style-type: none"> Adds an unit information when parts are replaced, etc. Clicking on this button will display an dialogue for addition of the unit information. Select the unit information that should be added, input its serial No. and replaced date, then click [Exe.] to display the unit information that should be added to the “Unit Info. List”. Send the information of the setting using [Send Log].
[Delete]	<ul style="list-style-type: none"> Deletes an unit information when parts are replaced, etc. Clicking on this button will display an dialogue for deletion of the unit information. Select the unit information that should be deleted, then click [Exe.] to display the “Unit Info. List” from which the selected unit information is deleted. Send the information of the setting using [Send Log].

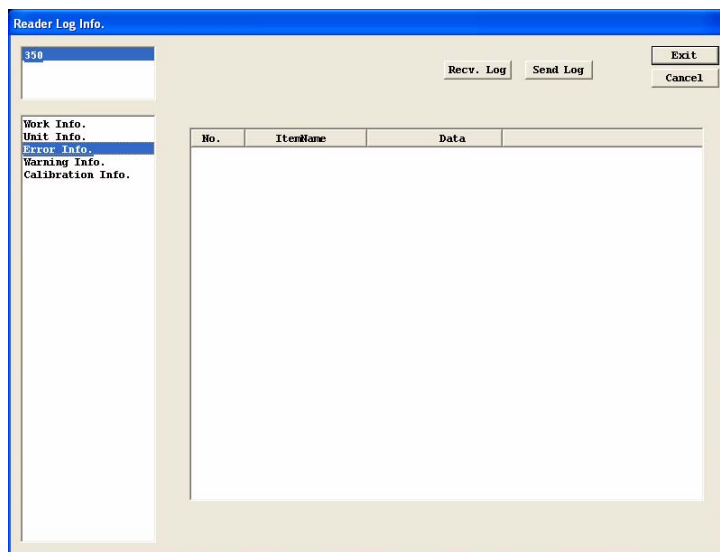
Unit code indicates each unit composing the REGIUS 350

Unit Code	Unit
1	Main unit
2	Optical unit
3	Power supply unit
4	Elevator unit
5	Oil pressure indicator (recumbent)
6	Plate

13.23.4 “Reader Log Info. • Error Info.” Screen (for REGIUS Model 350)

Start up from the sytem menu	Start up from the REGIUS Service Screen
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Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen) --> select “Error Info.” in the lower left menu

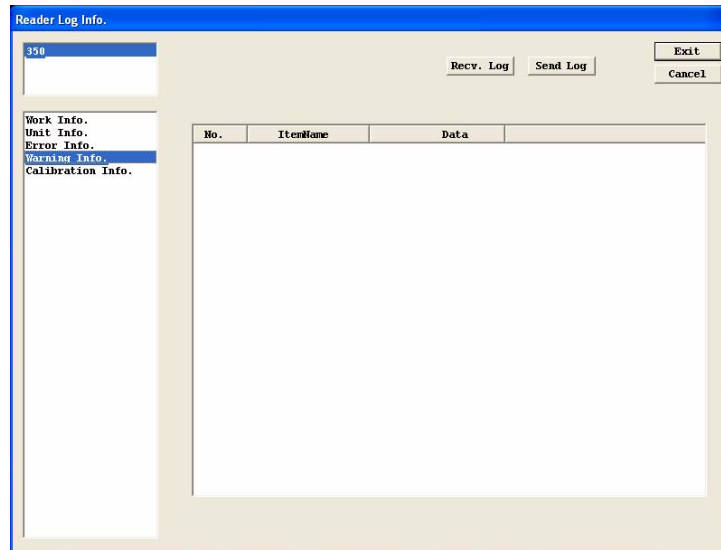


Key/Item	Function
Error Info. List	Displays the errors occurred on the reader device.

13.23.5 “Reader Log Info. • Warning Info.” Screen (for REGIUS Model 350)

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen)--> select “Warning Info.” in the lower left menu

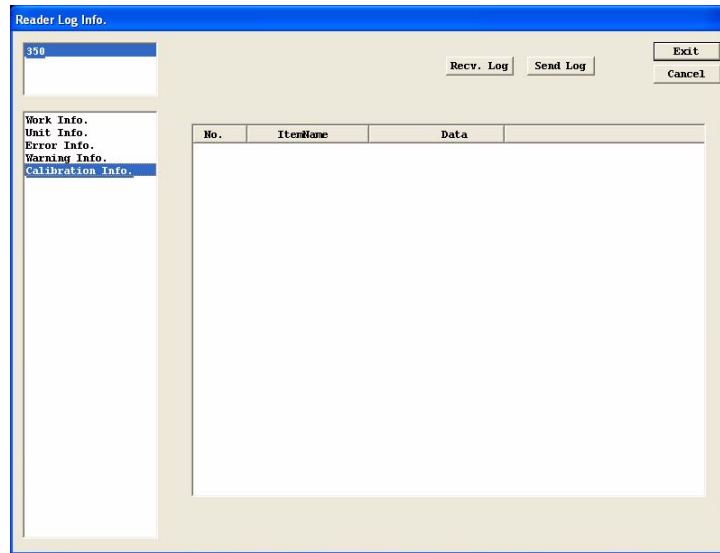


Key/Item	Function
Warning Info. List	Displays the warnings occurred on the reader device.

13.23.6 “Reader Log Info. • Calibration Info.” Screen (for dedicated reader)

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen) -->select “Calibration Info.” in the lower left menu)

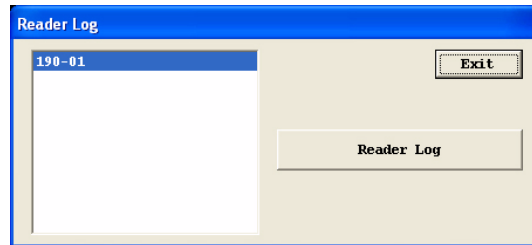


Key/Item	Function
Calibration Info. List	Displays the Calibration list implemented on the reader device.

13.23.7 “Reader Log Info.” Screen (for REGIUS 190/170)

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Reader] --> [Reader Logs] --> (select the reader from the “Reader Device” screen)



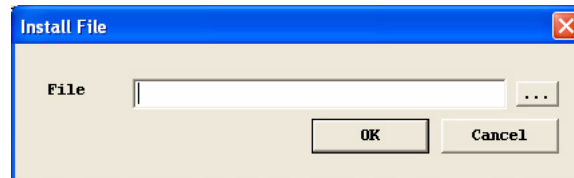
Key/Item	Function
Reader Select	Select the REGIUS 170 from which the log shall be collected when there are several reader devices are connected.
[Reader Log]	Acquires the logs from the REGIUS 170.
[Exit]	Exits the reader logs.

13.24 [Reader] > [File Import], [Upgrade]

13.24.1 “Install File” Screen

Start up from the sytem menu	Start up from the REGIUS Service Screen
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Display Procedure • • • • [Reader] --> [File Import]

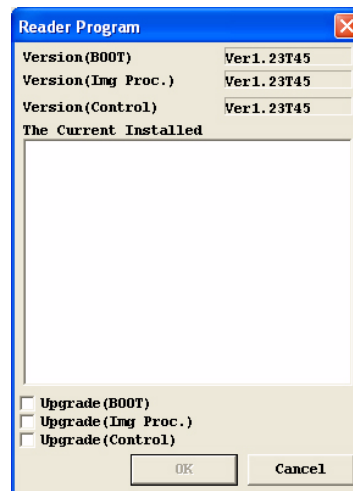


Key/item	Function
[...] (reference key)	Select the folder where the install program resides. Normally select from “A” drive (floppy disk drive).
[OK]	The selected program will be decompressed.
[Cancel]	Exit the “Install File” screen after cancelling the selection of the file.

13.24.2 “Reader Program” Screen (for REGIUS 350)

Start up from the sytem menu	Start up from the REGIUS Service Screen
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Display Procedure • • • • [Reader] --> [Upgrade] --> (select the reader from the “Reader Device” screen)

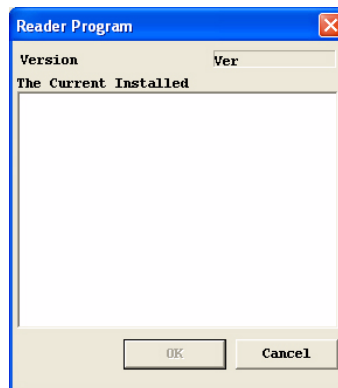


Key/Item	Function
Versions	Indicates the program versions (Boot/image process/control) which are currently running on the reader device.
The Current Installed	Version list of the reader device’s programs stored in the CS-3. The program selected here will be written in the reader device.
Program Selection	The reader program is comprised of 3 programs, i.e. “Boot Program/Image Process Program/Control Program”. Select the program which you want to change the version.
[OK]	Execute the switch over to the program version listed in the reader program version list.
[Cancel]	Exit the “Reader Program” screen after cancelling the installation of program.

13.24.3 “Reader Program (change)” Screen (for REGIUS 170/190)

Start up from the sytem menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Upgrade] --> (select the reader from the “Reader Device” screen)



Key/Item	Function
Version	Indicates the program version which is currently running on the REGIUS 170.
The Current Installed	Version list of the reader device's programs stored in the CS-3. The program selected here will be written in the reader device.
[OK]	Execute the switch over to the program version listed in the reader program version list.
[Cancel]	Exit the “Reader Program (change)” screen after cancelling the installation of program.

13.25 [Reader] > [Network]

13.25.1 “Network” screen

Write the network information on the REGIUS 170 using this screen. Communicating with the REGIUS 190/170 in FTP mode when the screen starts, displays the obtained REGIUS 170 information.

Start up from the sytem menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Reader] --> [Network] --> (select the reader from the “Reader Device” screen)

Name of currently connected REGIUS 170/190

Network Info.

Reader Name : <190-01>

Reader

Host Name
r170-0001

IP Address
10 . 14 . 9 . 40

Netmask
255 . 255 . 240 . 0

JM
Host Name
jml-0001

Hosts

Host Name	IP Address
jml-0001	10.14.3.139
cs1-0001	10.14.3.139

New Edit Delete

Send

Exit

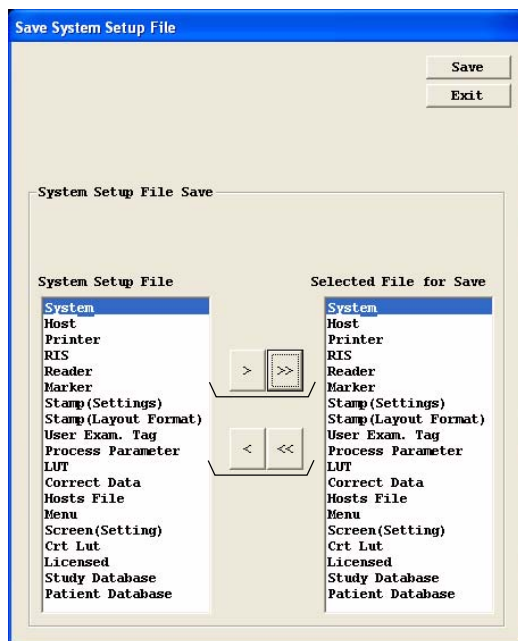
Key/Item	Function
Reader	
Host Name	Input the host name of the REGIUS 170. (default : r170-0001)
IP Address	Input the IP address of the REGIUS 170. (default : 192.168.20.180)
Netmask	Input the subnet mask of the REGIUS 170. (default : 255.255.255.0)
JM	
Host Name	Input the name of JM which controls this REGIUS 170.
Hosts	
Host List	Displays the host name and IP address of CS-3s which are connected to this REGIUS.
[New]	Click this button when newly inputting the host name and IP address of the CS-3 which uses this REGIUS 170. <div><div>New</div><div><div>Host Name</div><div></div><div>IP Address</div><div></div><div></div><div></div><div></div><div></div><div>OK</div><div>CANCEL</div></div></div>
[Edit]	Click this button to change the host name or IP address of the CS-3 listed on the “Host” window.
[Delete]	Delete the CS-3 from the “Host” window.
[Send]	Send the displayed set up to the REGIUS 170 in FTP mode.
[Exit]	Exit the “Network”. No change will be caused on the REGIUS 170.

13.26 [Back up] > [System], [Image], [Log]

13.26.1 “System Setup File Save” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be used in the User Tool.

Display Procedure •••• [Backup] --> [System]



Key/Item	Function
System Setup File Save	
System Setup File	Displays the list of system setting files that can be saved. <ul style="list-style-type: none"> In the User Tool, host setting/print setting/RIS setting/reader setting/ID card setting/LUT/corr. data/Hosts files/Design files/patient DB/exam. DB are not displayed.
[>], [>>]	[>] ••• Registers the items selected in “System Setup File” onto “Selected File for Save” [>>] ••• Registers all items shown in “System Setup File” onto “Selected File for Save” instantly by a single click.
Selected File for Save	Displays the files which are registered to be saved.
[<], [<<]	[<] ••• Excludes the files selected in “Selected File for Save” as non-saving items. [<<] ••• Excludes all items shown in the “Selected File for Save” as non-saving items instantly by a single click.
[Save]	Backs up the files in “Selected File for Save” onto the super disk.
[Exit]	Exits the “System Setup File Save” screen.

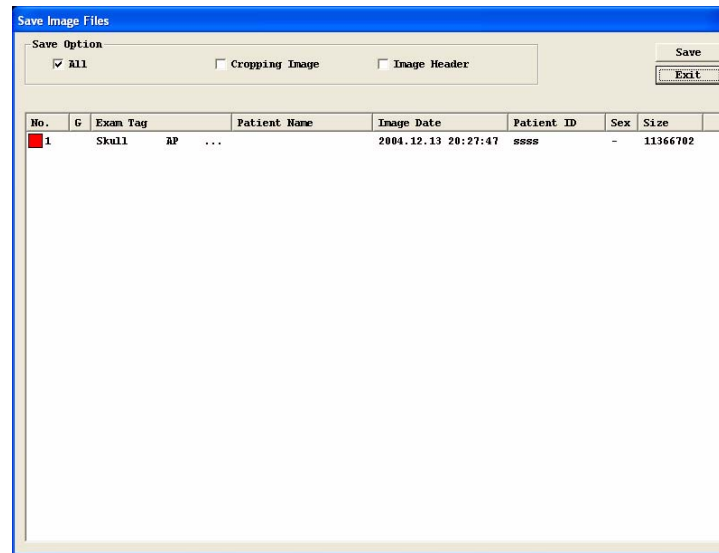
<Important> To maintain the conformity when executing a restore operation, select and save the following files always in pairs.

- “Stamp Setting 1 (stamp setting)” and “Stamp Setting 2 (style setting)”

13.26.2 “Image File Save” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Backup] --> [Image]



Key/Item	Function
Save Option	
All	Check to select this option enables to backup all image data (image files, cropping images, image headers). <ul style="list-style-type: none"> • In the field for file selection, all image data will be listed.
Cropping Image	Check to select this option enables to backup cropping images (and image headers). <ul style="list-style-type: none"> • In the field for file selection, all cropping images will be listed.
Image Header	Check to select this option enables to backup all header files. <ul style="list-style-type: none"> • In the field for file selection, all header files will be listed.
File selection field	List of files specified by “Save Option” will be shown in this field. Click and select the files to be saved.
[Save]	Implements backup of the image files selected in the file selection field.
[Exit]	Exits the “Image File Save” screen.

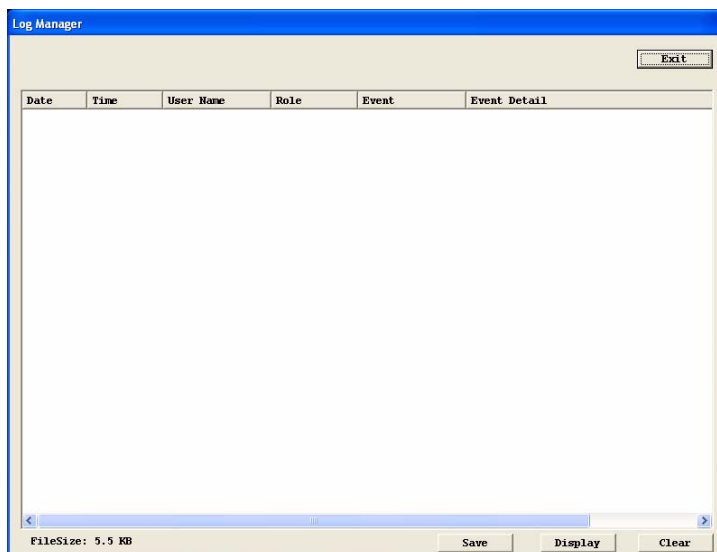
13.26.3 “Log Manager” Screen

Displays and saves the HIPAA logs.

- Able to display the HIPAA logs regardless of “Login Manage Mode” settings of “SYSTEM INFO • Security” screen.

<Important> HIPAA logs are continuously recorded even the Log-in Manage Mode is set to “OFF”. This obviously consumes the memory space of the HDD. It is recommended to regularly delete the HIPAA logs.

Display Procedure • • • • [Backup] --> [Hipaa Logs]



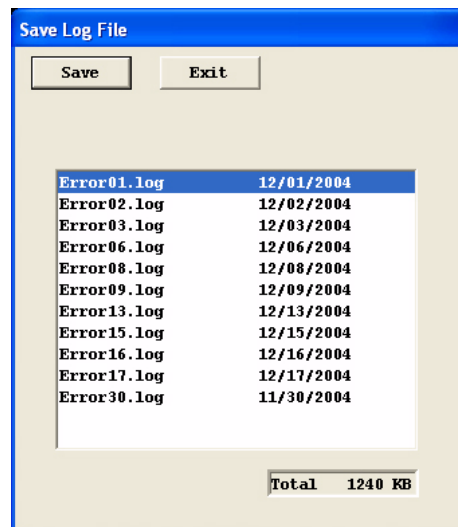
Key/Item	Function
[Save]	Saves the HIPAA logs. <ul style="list-style-type: none"> • A dialogue confirming deletion of the HIPAA logs after saving the logs will be shown. Clicking [Yes] will delete the HIPAA logs, whiel [No] does not.
[Display]	Displays current HIPAA logs on the screen.
[Clear]	Deletes the HIPAA logs.
[Exit]	Exits the “Log Manager” screen.

13.26.4 “Log File Save” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Backup] --> [Log]

Saves both basic logs and error logs. Specify the date for error logs.



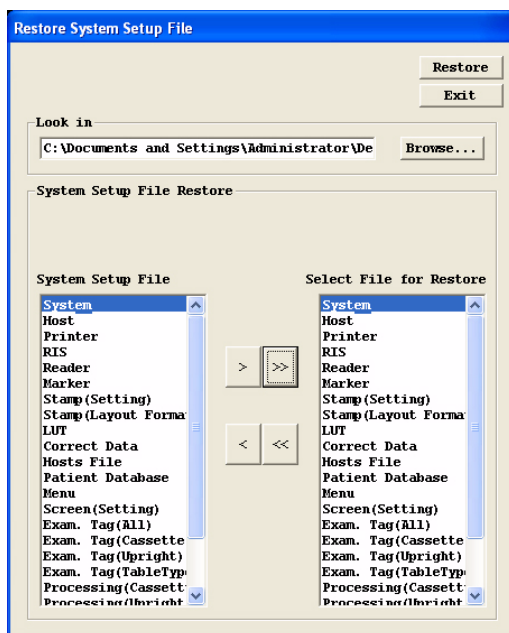
Key/Item	Function
Error Log File List	<p>Displays the log files stored on the CS-3 in order of date (starting from the oldest) Click to select the error log file in the list to be saved.</p> <ul style="list-style-type: none"> Clicking the files with <Shift> key depressed enables to select several files in series at a time. Clicking the files with <Ctrl> key depressed enables to individually select several files at a time.
Total	Displays the total Bytes of the files selected in the “Error Log File List” in “KByte”.
[Save]	Saves in the specified folder, “Basic Logs” and the logs selected in the list.
[Exit]	Exits the “Log File Save” screen.

13.27 [Restore] > [Sytem], [Image]

13.27.1 “System Setup File Restore” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐ A part of items can be used in the User Tool.

Display Procedure •••• [Restore] --> [System]

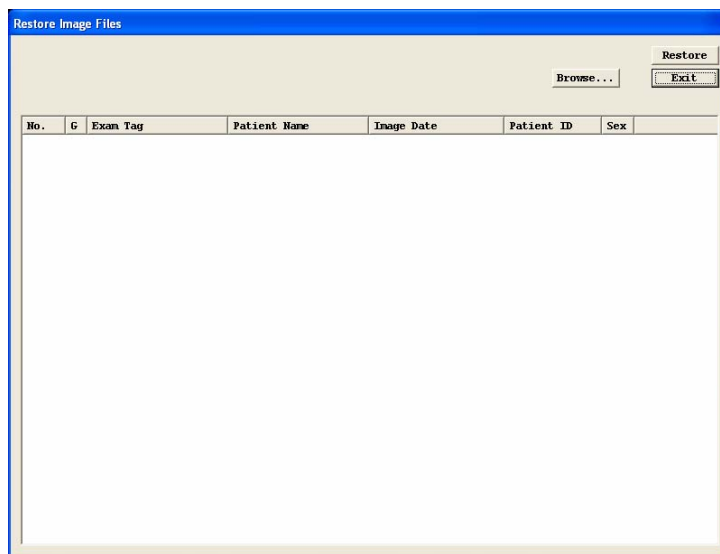


Key/Item	Function
Look in	
Folder Name	Input a folder name where a set up file to be restored exists. (default : A:) or; <ul style="list-style-type: none"> Click [Browse. . .] to display the folder name where the target file exists.
[Browse. . .]	Displays the dialogue in which you can specify the restore-origin folder.
System Setup File Restore	
System Setup File	Displays the list of system set up files that are stored in the folders listed in “Look in”. Click to select the file in the list to be restored.
[>], [>>]	[>] ••• Register the items selected in “System Setup File” onto “Selected File for Save”. [>>] ••• Register all items shown in “System Setup File” onto “Selected File for Save” instantly by a single click.
Selected File for Save	Displays the files which are registered to be restored.
[<], [<<]	[<] ••• Excludes the files selected in “Selected File for Save” as non-restore items. [<<] ••• Excludes all items shown in the “Selected File for Save” as non-restore items instantly by a single click.
[Restore]	Clicking on this button while minimum 1 file exists in “Selected File for Save”, initiates restore.
[Exit]	Exits the “Setup File Restore” screen.

13.27.2 “Image File Restore” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Restore] --> [Image]



Key/Item	Function
Restore File Select Field	<p>Displays a list of image files stored in the restore-origin folder (default : A:).</p> <p>Click to select the image file to be restored.</p> <ul style="list-style-type: none"> Clicking the files with <Shift> key depressed enables to select several files in series at a time. Clicking the files with <Ctrl> key depressed enables to individually select several files at a time.
[Browse ...]	Select the folder where exists the image data to be restored.
[Restore]	Click this button after selecting the image data you want to restore, from the image data list displayed on the screen.
[Exit]	Exits the “Image File Restore” screen.

13.28 [Adjustment] > [Touch Panel], [Brightness]

13.28.1 “Touch Panel” Screen

<Important> This tool is exclusively for CS-1. Use instead, “Touch Ware” of the control panel for CS-3.

<Important> Do not touch other than “Align...” unless otherwise instructed.

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Adjustment] --> [Touch Panel]

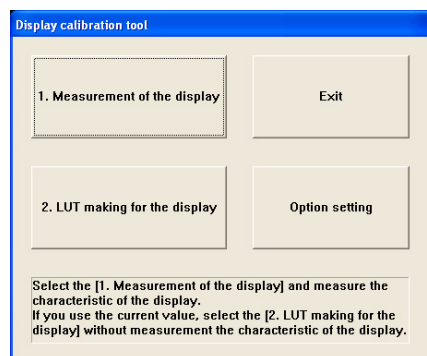


Key/Item	Function
[Align...]	Displays the screen for adjusting the axis between the screen (window) and the touch panel.
[OK]	Saves the touch panel setting after adjustment, and exit “Elo Touchscreen Properties” screen.
[Cancel]	Exit “Elo Touchscreen Properties” screen without saving the adjusted setting.

13.28.2 “Brightness” Screen

Start up from the sytem menu ☐ Start up from the REGIUS Service Screen ☐

Display Procedure •••• [Adjustment] --> [Brightness]



Key/Item	Function
[1. Measurement of the display]	Clicking on this button displays the screen for monitor correction • property measurement.
[2. LUT making for the display]	Clicking on this button displays the screen for monitor correction • LUT creation.
[Option Setting]	Clicking on this button displays the screen for monitor correction • option setting.
[Exit]	Exits the “Display Calibration Tool” screen.

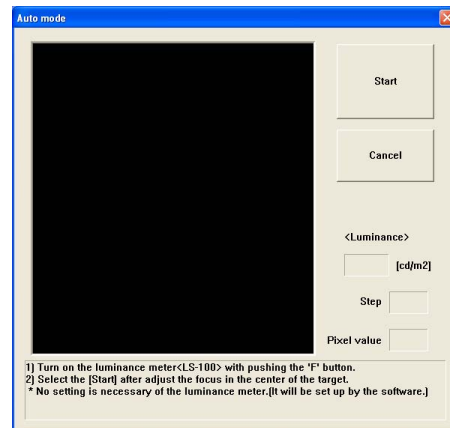
13.28.3 “Brightness • Prop. Measure” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure • • • • [Adjustment] --> [Brightness] --> [1. Measurement of the display]

- Auto Mode Screen

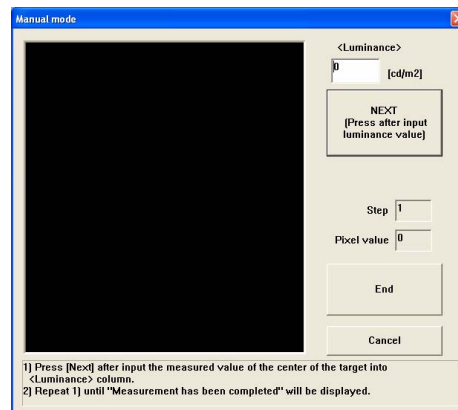
This screen will be shown when the “Auto mode” is selected in "13.28.5 “Bright. Adjustment • Option Setting” Screen ", 13-145



Key/Item	Function
[Start]	Clicking on this button with the luminance meter connected automatically starts measurement. (refer to "10.7.2 Measuring the Luminance Characteristics", 10-22.
[Cancel]	Exit the “Auto mode” screen without implementing the luminance measurement.

- Manual Mode Screen

This screen will be shown when the “Manual mode” is selected in "13.28.5 “Bright. Adjustment • Option Setting” Screen ", 13-145.



Key/Item	Function
<Luminance>	Input the measurement value of the luminance meter.
[NEXT (click after inputting the luminance)]	Brightness of the target increases as the button is clicked.
Step	Displays the luminance step of the target.
Pixel Value	Displays the pixel value of the target.
[End]	Completes the measurement and exits the “Manual mode” screen.
[Cancel]	Cancels the brightness measurement, and exits the “Manual mode” screen without completing the measurement.

13.28.4 “Bright. Adjustment• LUT making for the display” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Adjustment] --> [Mon. Corr.] --> [(2) Create Monitor LUT]

Key/Item	Function
Imager Dmax	Input the Dmax of the destination imager. <ul style="list-style-type: none"> • Normally not to be used.
Imager Dmin	Input the Dmin of the destination imager. <ul style="list-style-type: none"> • Normally not to be used.
Light box luminance Lo [cd/m²]	Input the measured luminance of the viewer without a film.
Reflection from film La [cd/m²]	Input the measured luminance of the film on the viewer.
Convert Method	Select the conversion method using a radio button.
Lightness linear conversion	Creates LUT using the lightness linear conversion.
Lightness equivalent conversion	Creates LUT using the lightness equivalent conversion.
GSDF conversion (input : D Value)	Creates LUT using the GSDF conversion when the image pixels bear D value. <p style="text-align: center;"><Important> Do not select this item because image display withing the system should be controlled by P value only.</p>
GSDF conversion (input : P Value)	Creates LUT using the GSDF conversion when the image pixels bear P value.
[Convert/Save]	Convert and save the monitor LUT obtained from the measurement. <ul style="list-style-type: none"> • Clicking on this button displays the dialogue, allowing you to set the output destination to which the LUT will be applied. • “Set Smooth” screen will be shown following the dialogue for setting the output destination when “Luminance Equiv. Conv.” is selected.
[Exit]	Exit the “LUT Making for Display” screen.

13.28.5 “Bright. Adjustment • Option Setting” Screen

Start up from the sytem menu	●	Start up from the REGIUS Service Screen	●
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Display Procedure • • • • [Adjustment] --> [Brightness] --> [Option Setting]

Option setting

Product CS-1/CS-3

Method

☒ Auto mode

☐ Manual mode

Display Reflection Luminance

☐ Yes

☒ No

COM port COM2

Steps 16

LUT folder:
C:\KonicaMinolta\CS-3\Env\Manage\CRT_LUT

Luminance meter check

Exit

Cancel

If you check the connection with the luminance meter,
1) Turn on the luminance meter<LS-100> with pushing the 'F' button on <LS-100>.
2) Select [Luminance meter check].

Key/Item	Function
Method	
Auto Mode	Communicating with the luminance meter, and automatically carry out the luminance measurement. <ul style="list-style-type: none"> Normally select this.
Manual Mode	Input the measured luminance, and measure the monitor luminance manually. <ul style="list-style-type: none"> Select this method in the case that the luminance meter cannot communicate with the CS-3 due to the incompatibility in communication, etc.
Display Reflection Luminance Measurement	No fixed.
COM port	Select the communication port from the following when required. <ul style="list-style-type: none"> Always select “COM2”(fixed) with current version.
Steps	Input the luminance steps of auto-measurement.
[Luminance meter check]	Click this button to check the communication status of the luminance meter.
[Exit]	Exits the “Option Setting” screen after saving the changes in setting.
[Cancel]	Exits the “Option Setting” screen without saving the changes.

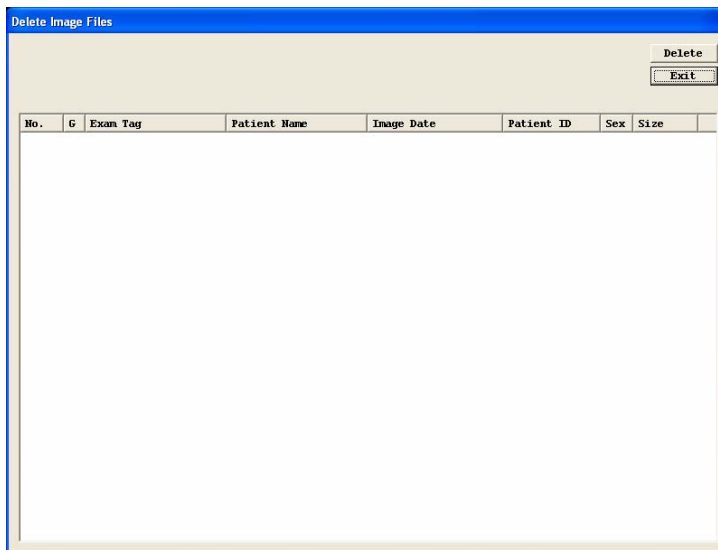
13.29 [Adjustment] > [Delete Image], [Delete All]

13.29.1 “Delete Image” Screen

<Important> Using the function of this screen, protected images are also deleted. Pay full attention when selecting the image to be deleted.

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Adjustment] --> [Delete Image]

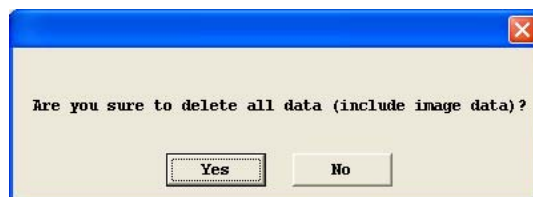


Key/Item	Function
Image Select List	Displays a list of images stored in the HDD. Click to select the file to be deleted in the list .
[Delete]	The image selected in the “Image Select List” will be deleted. Clicking on this button displays a confirmation dialogue.
[Exit]	Exits the “Image File Delete” screen.

13.29.2 “Delete All” Dialogue

Start up from the sytem menu	Start up from the REGIUS Service Screen	●
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Display Procedure •••• [Adjustment] --> [Delete All]



Key/Item	Function
[Yes]	Deletes all image data stored in the HDD.
[No]	Cancels the delete operation.

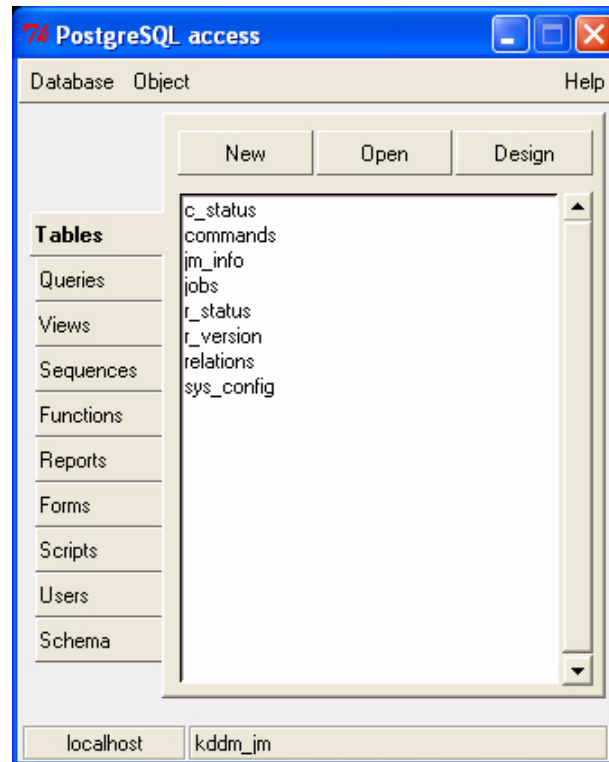
13.30 [Adjustment] > [Configure], [Backup], [Restore], [Log], [Initialize]

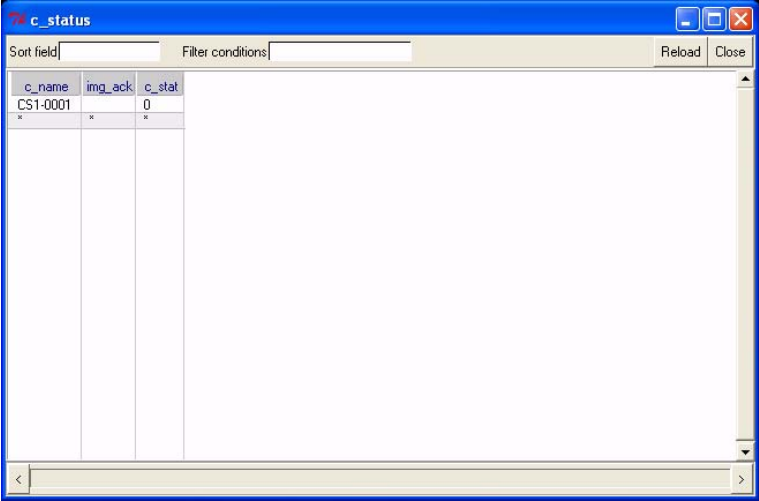
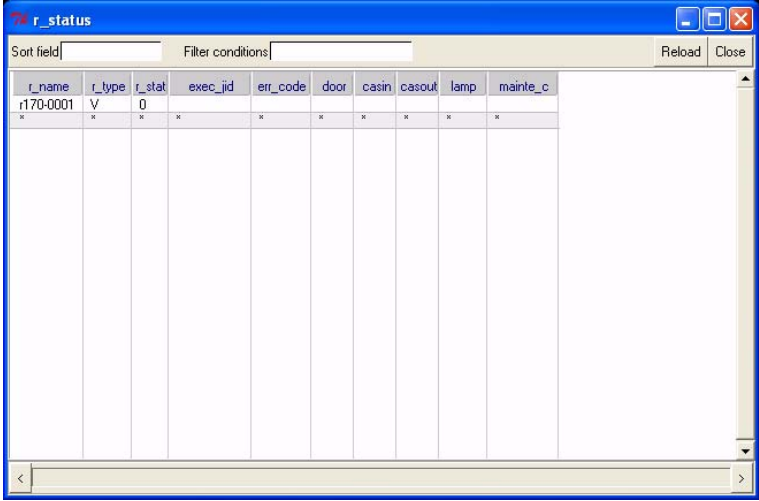
13.30.1 “PostgreSQL access” Screen

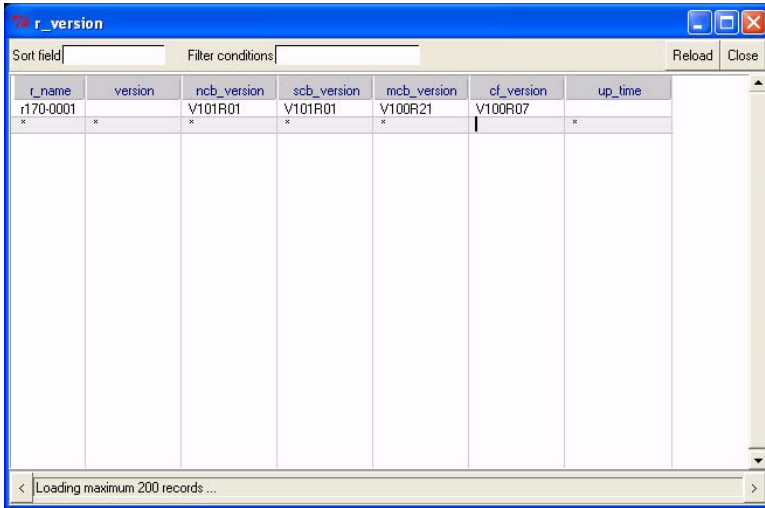
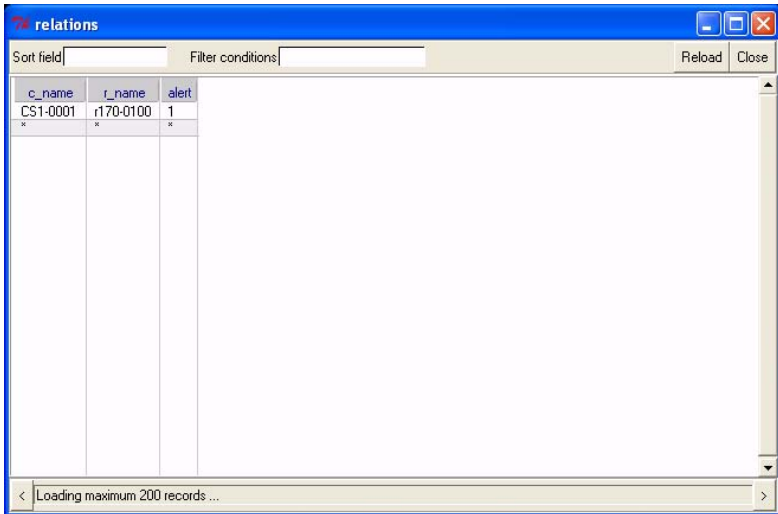
A launcher screen in the “PostgreSQL access” tool for engaging the CS-3 to the JM.

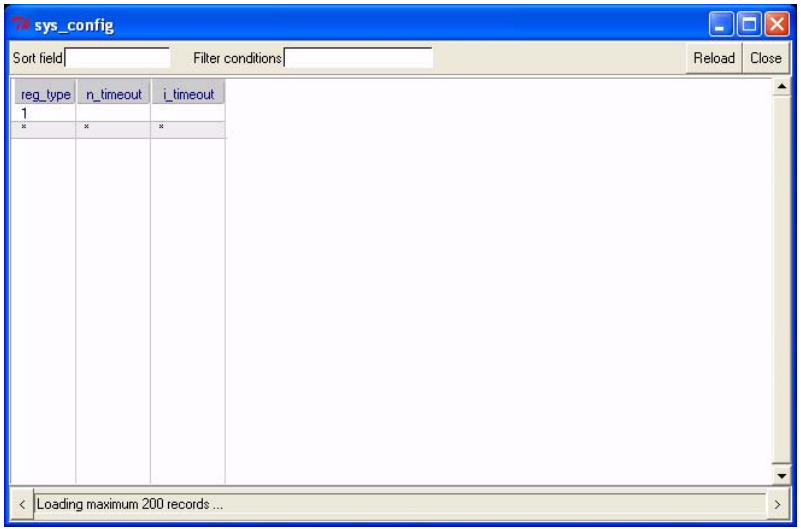
Start up from the sytem menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Adjustment] --> [Configure]



Key/Item	Function
c_status	<div>The list of the CS-3(s) that are under control of the JM. Use this screen to delete or add the CS-3.</div> <div></div> <div><ul style="list-style-type: none">“c_stat” displays the current status of each CS-3 by numbers. 2 : Power OFF 1 : Reading 0 : Ready -1 : Error</div>
r_staus	<div>A list in which all REGIUS 170s under the control of the JM are shown. Use this screen to delete or add the REGIUS 170.</div> <div></div> <div><ul style="list-style-type: none">“r_stat” displays the current status of each REGIUS 170 by numbers. 3: Standby 2 : Power OFF 1 : Reading 0 : Ready -1 : Error</div>

Key/Item	Function
r_version	<p>Displays the firmware version, date of update of the REGIUS190/170 that is controlled by the JM. Use this screen to add or delete the REGIUS 190/170.</p>  <ul style="list-style-type: none"> • “version” displays the current firmware version of each REGIUS 170. • “up_time” displays the date when the update was made to that version.
relations	<p>A list in which all REGIUS 170s under the control of the JM are shown. Use this screen to delete or add the REGIUS 170.</p>  <ul style="list-style-type: none"> • “alert” displays the controls between the related CS-3 and REGIUS 170 by numbers. 1: Power control, transfer of error information. 0 : Only power control. Error information will not be transferred.

Key/Item	Function
sys_config	<p>Displays the cassette registration method. Set the barcode registration or manual registration on this screen.</p>  <p>The screenshot shows a window titled 'sys_config'. At the top, there are fields for 'Sort field' and 'Filter conditions', followed by 'Reload' and 'Close' buttons. Below these is a table with three columns: 'reg_type', 'n_timeout', and 'i_timeout'. The 'reg_type' column contains the value '1'. The 'n_timeout' and 'i_timeout' columns are empty. At the bottom of the window, there is a status bar that says '< Loading maximum 200 records ... >'. Below the screenshot, there is a list item: '• “reg_type” displays the cassette registration type by numbers. 1 : Manual registration. 0 : barcode registration.'</p>

13.30.2 Back Up of JM Information

Backs up the data base set on the JM in the floppy disk (and F drive).

Display Procedure •••• [Adjustment] --> [Backup]

Upon selecting this, back up will immediately start.

- When a floppy disk has been inserted in the floppy disk drive, the data base will be backed up onto the floppy disk and “F” drive under the folder name of “backup_jm”.

13.30.3 Restore of JM Information

Restores the JM data base from the floppy disk (or “F” drive).

Display Procedure •••• [Adjustment] --> [Restore]

Upon selecting this, restore will immediately start.

- When a floppy disk has been inserted in the floppy disk drive, the data base will be restored from the floppy disk.
- When no floppy disk in the drive, the data base will be restored from the specific folder of “F” drive.

13.30.4 JM Log Save

Collects and save the JM log in the floppy disk (and F drive).

Display Procedure •••• [Adjustment] --> [Log]

Upon selecting this, saving will immediately start.

- When a floppy disk has been inserted in the floppy disk drive, the log will be backed up onto the floppy disk and specific folder of the F drive.
- No operation screen. Command prompt to show the progress will be shown during back up.

13.30.5 JM Initialize

Initialize the JM data base, and restores the initial condition as it was when delivered.

Start up from the sytem menu	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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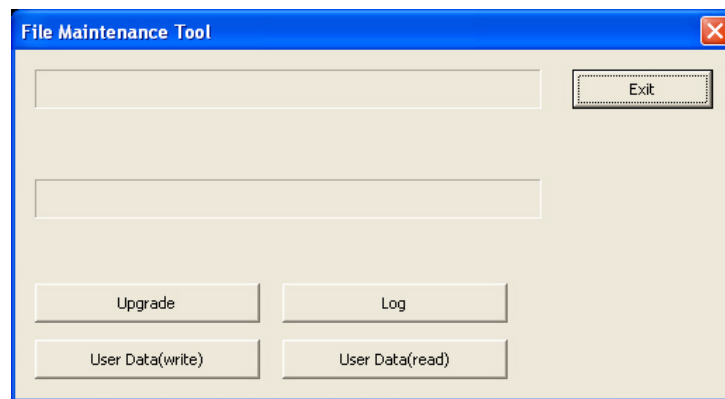
Display Procedure •••• [Adjustment] --> [Initialize]

Upon selecting this, initialization will immediately start.

13.30.6 PDA

Collects and save the JM log in the floppy disk (and F drive).

Display Procedure •••• [Adjustment] --> [Log]

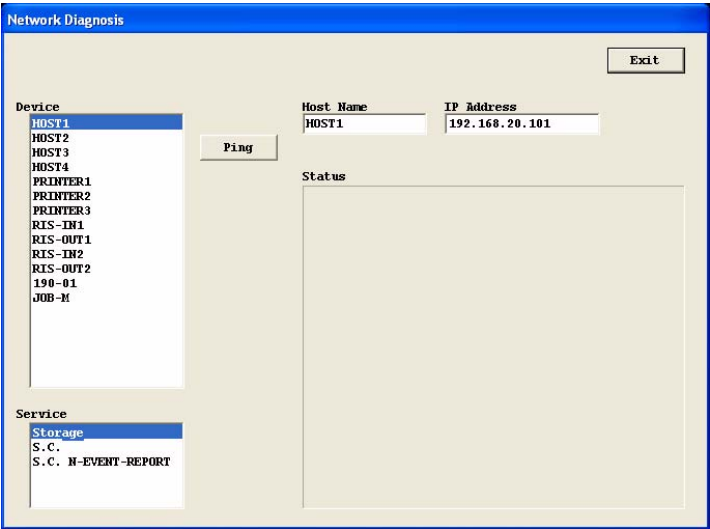


13.31 [Analyze] > [Ping]

13.31.1 “Network Diagnosis” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure [Analyze] --> [Ping]



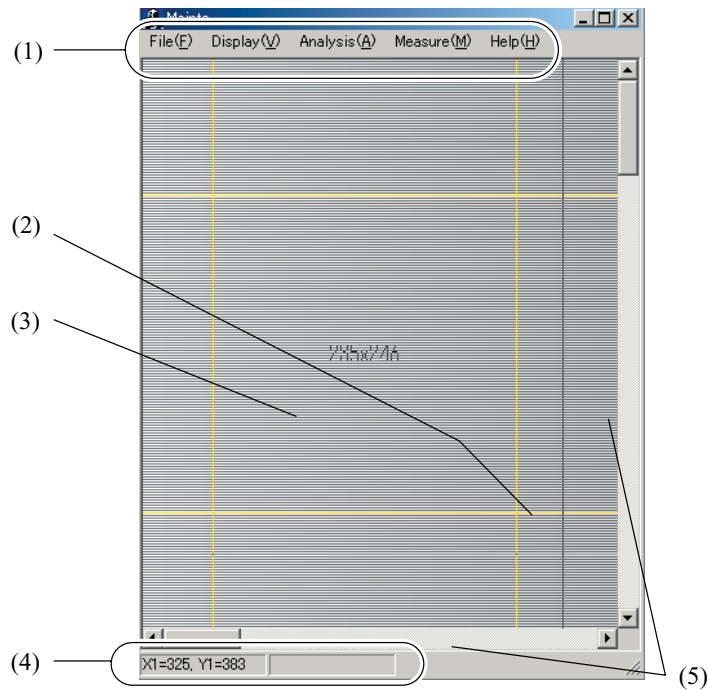
Key/Item	Function
Device	Select the device that should be diagnosed.
Service	Select the socket of the device to be diagnosed. <ul style="list-style-type: none">• Necessary to select the socket if hosts or printers are selected as the external device.
Host Name	Display the host name of the selected external device.
IP Address	Display the IP address of the selected external device.
[Ping]	Displays the result of Ping. <ul style="list-style-type: none">• If an error occurs on the network, the error contents will be shown.
[Exit]	Exits the "Network Diagnosis" screen.

13.32 [Analyze] > [Image] (exam. tool)

13.32.1 “Mainte” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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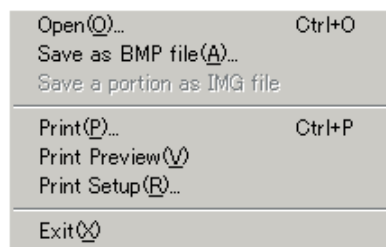
Display Procedure • • • • [Analyze] --> [Image]



Key/Item	Function
(1) Menu	
File (F)	Reads the image file, prints the image, etc.
Display (V)	Sets the contrast, changes the image size, depicts and deletes the grid lines.
Analyze (A)	Displays the histogram of the image data, horizontal and vertical profiles.
Measure (M)	Measures the MTF of the image data, S-sensitivity, unevenness correction.
Help (H)	Displays the version information.
(2) Cursor Line*	Indicate the current cursor position by means of lines.
(3) Selecting Rectangular*	Displays the rectangular that will select the information area on the histogram, horizontal and vertical profile. <ul style="list-style-type: none"> While the cursor line is displayed, drag the mouse with the mouse's right button being pressed to change size and position of the rectangular.
(4) Mouse Position*	Mouse's current position is indicated by X, Y- axis. During the mouse being dragged, origin of axis is shown on the left, and the current axis of the cursor position is shown on the right.
(5) Scroll Bar	The scroll bar will be displayed when the image cannot be displayed within the main image frame. <ul style="list-style-type: none"> This bar is interlocked with the scroll bar of the horizontal and vertical profile.

* They will not be displayed when there is no cursor on the main image frame, or when there is no dialogue for histograms or horizontal and vertical profile is shown.

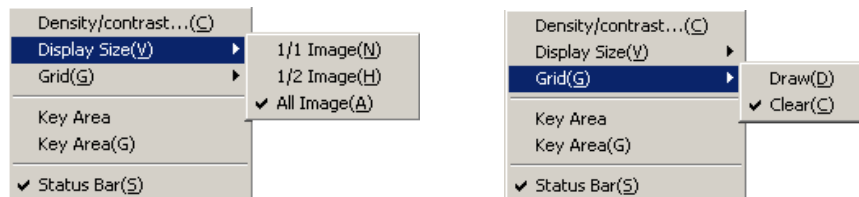
- File (F)



Menu Item	Function
Open (O)	Displays the file selection dialogue, and displays the selected file. <ul style="list-style-type: none"> Dialogue for file selection will appear.
Save as BMP file (A)...	Displays the folder selection dialogue, and save the currently displayed image in BMP file format. <ul style="list-style-type: none"> Dialogue for file selection will appear.
Save a portions as IMG file	Select the area on the image, and save the image within this area.
Print (P)...	Displays the print dialogue, and prints the current status that is shown on the desk top.
Print Preview (V)	Displays the printed image.
Printer Setting (R)...	Displays the printer Info. dialogue, and changes the printer properties.
Exit (X)	Exit from the Exam. Tool.

- Display (V)

- The submenu can only be selected when an image file is open.



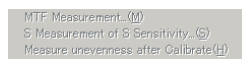
Menu Item	Function						
Density / Contrast (C)	Displays the “Den. • Cont. Setting” screen.						
Display Size (V)	<table border="1"> <tr> <td>1/1 Image (N)</td> <td>Displays the image data by 1 to 1.</td> </tr> <tr> <td>1/2 Image (H)</td> <td>Displays the image data by 1 to 2.</td> </tr> <tr> <td>All Image (A)</td> <td>Displays the whole image by applying appropriate skipping ratio.</td> </tr> </table>	1/1 Image (N)	Displays the image data by 1 to 1.	1/2 Image (H)	Displays the image data by 1 to 2.	All Image (A)	Displays the whole image by applying appropriate skipping ratio.
1/1 Image (N)	Displays the image data by 1 to 1.						
1/2 Image (H)	Displays the image data by 1 to 2.						
All Image (A)	Displays the whole image by applying appropriate skipping ratio.						
Grid (G)	<table border="1"> <tr> <td>Draw (D)</td> <td>Displays the grid lines (100 pixels/scale)</td> </tr> <tr> <td>Clear (C)</td> <td>Erase the currently displayed grid lines.</td> </tr> </table>	Draw (D)	Displays the grid lines (100 pixels/scale)	Clear (C)	Erase the currently displayed grid lines.		
Draw (D)	Displays the grid lines (100 pixels/scale)						
Clear (C)	Erase the currently displayed grid lines.						
Key Area	Displays the Key Area.						
Key Area (G)	Applying “G” processing to the displayed image according to the parameteres contained in the additional information for exposure, and opens the “ROI” screen.						
Status Bar (S)	Switches the display of mouse position ON/OFF						

- Analysis (A)
- Selectable only when an image file is displayed.



Menu Item	Function
Histogram (H)	Displays the histogram dialogue.
Profile (Horizontal) (S)	Displays the horizontal profile dialogue.
Profile (vertical) (V)	Displays the vertical profile dialogue.

- Measure (M)
- Selectable only when an image file is displayed.

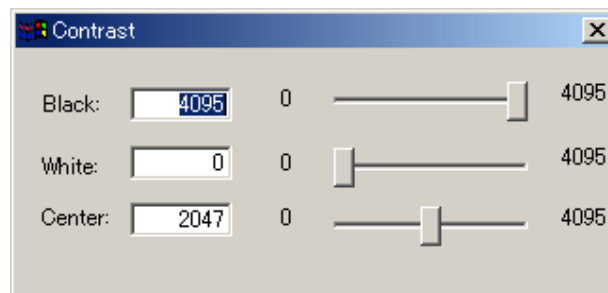


Menu Item	Function
MTF Measurement... (M)	Displays the MTF measurement screen.
S Measurement of S Sensitivity... (S)	Displays the S-sensitivity measurement screen.
Measure unevenness after calibrate (H)	Displays the unevenness measurement screen after the correction.

13.32.2 “Contrast” Screen

Start up from the sytem menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure •••• [Analyze] --> [Image] --> [Display (V)] --> “Density / Contrast (C)”



Key/Item	Function
Black:	Allows the input of max. signal value and its display. <ul style="list-style-type: none"> • Set the value by inputting the value or using the slider. (input range : 0 ~ 4095)
White:	Allows the input of min. signal value and its display. <ul style="list-style-type: none"> • Set the value by inputting the value or using the slider. (input range : 0 ~ 4095)
Center:	Allows the input of med. signal value and its display. <ul style="list-style-type: none"> • Set the value by inputting the value or using the slider. (input range : 0 ~ 4095)

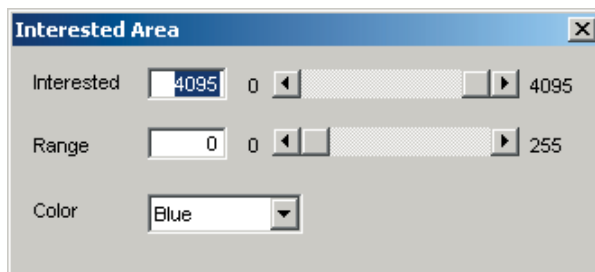
- Setting the min. signal value > max. signal value will reverse the B&W of the image.

13.32.3 “ROI” Screen

Displays the specified part of the image by applying a color.

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Analyze] --> [Image] --> [Display (V)] --> “Key Area”



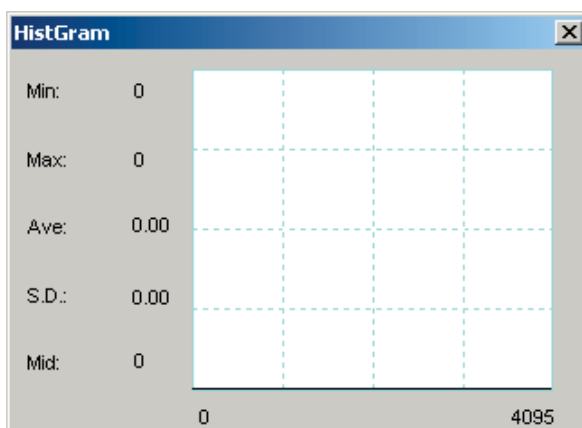
Key/Item	Function
Interested	Specify the density which you want to display in color. <ul style="list-style-type: none"> Set the value by inputting the value or using the slider. (input range : 0 ~ 4095)
Range	Specify the surrounding border with the Key Area in center. <ul style="list-style-type: none"> Set the value by inputting the value or using the slider. (input range : 0 ~ 255)
Color	Select the color to be applied in the combo box. <ul style="list-style-type: none"> Red, green, blue, cyan, magenta, yellow, monochrome2

13.32.4 “Histogram” Screen

Displays the frequency distribution of the area selected by the rectangular on “Main” screen.

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
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Display Procedure •••• [Analyze] --> [Image] --> [Analysis] --> “Histogram (H)”

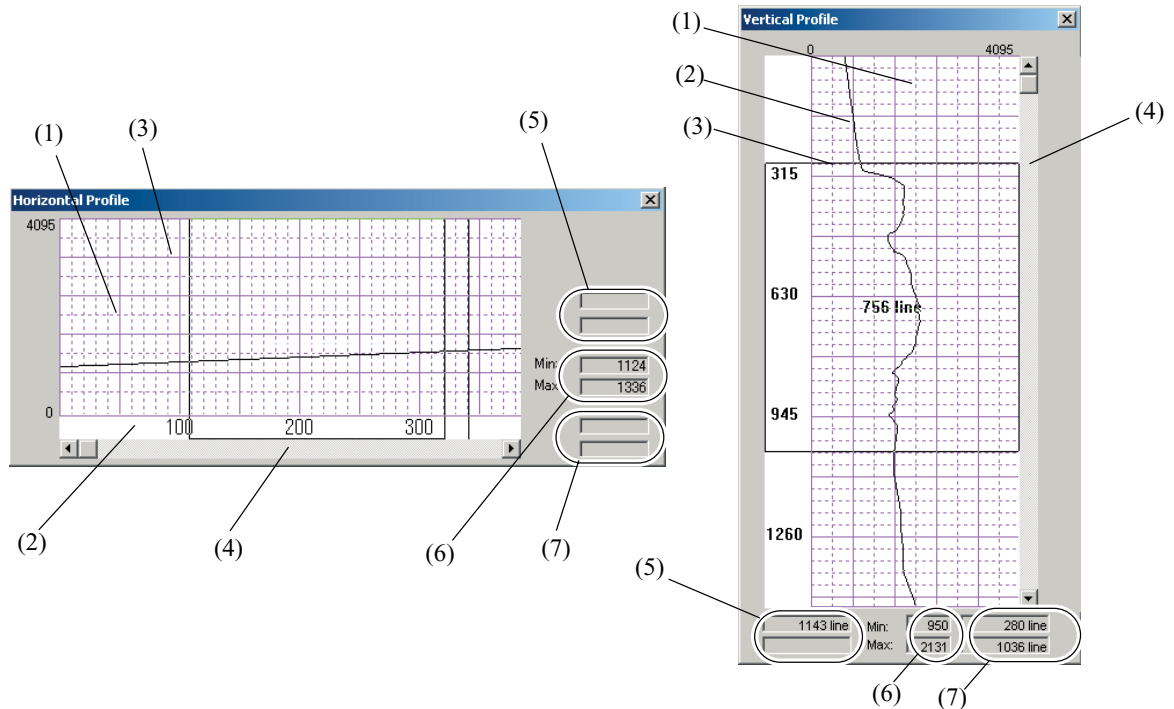


Display	Function
Min:	Displays the min. signal value within the rectangular.
Max:	Displays the max. signal value within the rectangular.
Ave:	Displays the ave. signal value within the rectangular.
S.D.:	Displays the standard deviation within the rectangular.
Mid:	Displays the median within the rectangular.
Histogram	Displays the histogram by assuming the most popular signal value within the rectangular as “1”.

13.32.5 “Hor. & Ver. Profile” Screen

Start up from the sytem menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
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Display Procedure ••• [Analyze] --> [Image] --> [Analysis (A)] --> “Profile (Horizontal) (S)” or “Profile (Vertical) (V)”

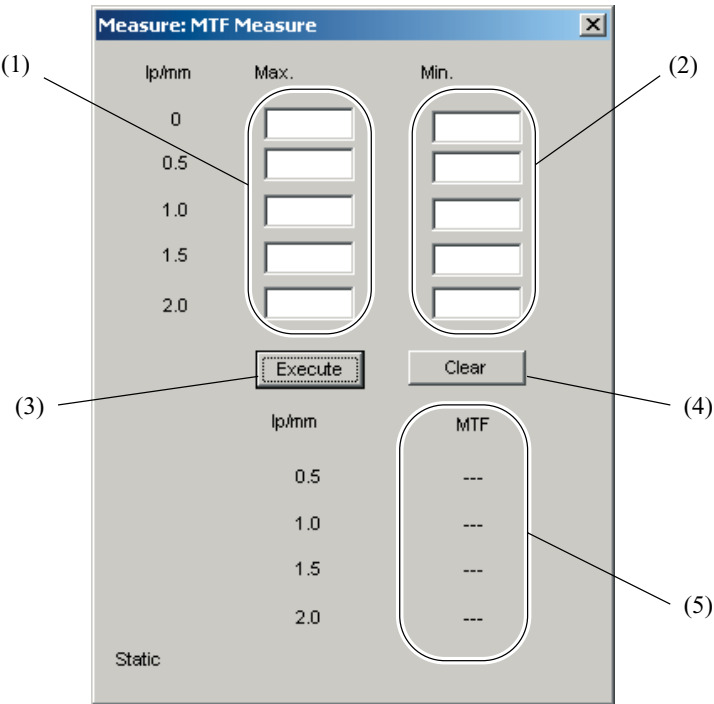


	Key/Item	Function
(1)	Profile Data	Displays the average profile of the line selected on the main image.
(2)	Cursor Line	Displays the lines corresponding to axis where the current position of the cursor locates.
(3)	Selecting Rectangular	Selecting any part of the profile information will allow you to find the min. and max. signal value within the selected area. Selecting procedures are same as that for the main image.
(4)	Scroll Bar	Scrolls the profile info. display. This bar is interlocked with the one for the main image. <ul style="list-style-type: none"> • Interlocked with the scroll bar of the main window.
(5)	Mouse Position	Displays the mouse position when it is being dragged. <ul style="list-style-type: none"> Upper ••• Displays the origin of the rectangular. Lower ••• Displays the current position of the cursor.
(6)	Max./min. Signal Value	Min. ••• Displays the minimum signal value within the rectangular. Max. ••• Displays the maximum signal value within the rectangular.
(7)	Select Rectangular Start/End	Upper ••• Displays the start point line of the rectangular. Lower ••• Displays the end point line of the rectangular.

13.32.6 “MTF Measurement” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Analyze] --> [Image] --> [Measure (M)] --> “MTF Measurement (M)”



	Key/Item	Function
(1)	Max. Signal Value of 0 lp/mm ~ 2.0 lp/mm	Displays the maximum signal value for 0, 0.5, 1.0, 1.5, 2.0lp/mm each.
(2)	Min. Signal Value of 0 lp/mm ~ 2.0 lp/mm	Displays the minimum signal value for 0, 0.5, 1.0, 1.5, 2.0lp/mm each.
(3)	[Execute]	Clicking on this button while both maximum and minimum signal values are displayed will initiate the MTF measurement.
(4)	[Clear]	Clears the displayed or input items.
(5)	MTF Value of 0 lp/mm ~ 2.0 lp/mm	Displays the MTF measurement for 0, 0.5, 1.0, 1.5, 2.0lp/mm.

• Measuring Method of 0 lp/mm Data

Display the histogram screen, then click the input box for 0 lp/mm of the MTF measurement screen. After confirming that the cursor (|) is displayed in the box, select the max. and min. measurement area for 0 lp/mm on the main image. As the area is selected, its average value will be shown in the input area.

• Measuring Method of 0.5 ~ 2.0 lp/mm

Display the horizontal • vertical profile screen, then click the input box for 0.5 lp/mm of the MTF measurement screen. After confirming that the cursor (|) is displayed in the box, select the max. and min. measurement area for 0.5 ~ 2.0 lp/mm on the main image. As the area is selected, its average value will be shown in the input area.

13.32.7 “Measure: S Sensitivity Measure” Screen

Start up from the sytem menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
------------------------------	----------------------------------	-----------------------------------------	----------------------------------

Display Procedure •••• [Analyze] --> [Image] --> [Measure (M)] --> “S-Sen. Measure (S)”

The screenshot shows a dialog box titled "Measure : S Sensitivity Measure". It contains the following elements:

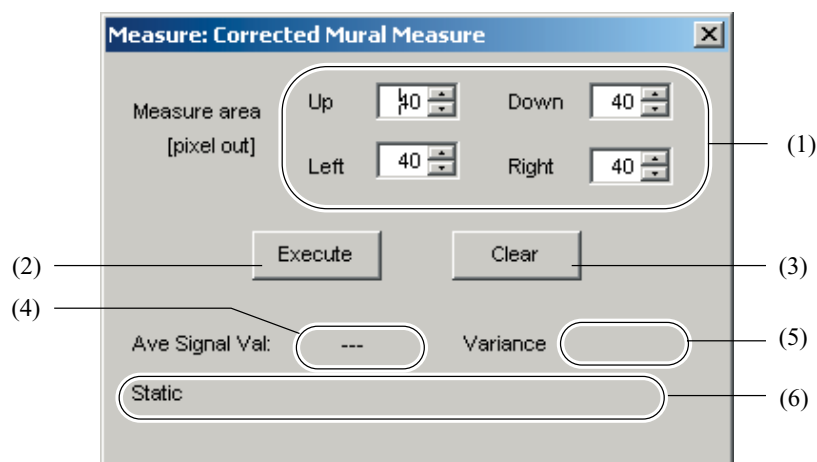
- (1) "S Value:" with a selection box showing 25, 100, 200, 400, and 800.
- (2) "Line Val[mR]" with an input field.
- (3) "Measure Area [Except Img]" with four spinners: Up (40), Down (40), Left (40), and Right (40).
- (4) "Execute" button.
- (5) "Clear" button.
- (6) "S Sensitive..." display field.
- (7) "Ave S Val:" display field.
- (8) "Static" display field.

	Key/Item	Function
(1)	S Value	Select the S-value from 25, 100, 200, 400, 800.
(2)	Line Val[mR]	Input the X-ray dose.
(3)	Measure Area [Except Img]	Input the pixels for each side (up/down, R/L), which should be excluded from the measuring area
(4)	[Execute]	Execute the S-sensitivity measurement.
(5)	[Clear]	Clear the items displayed or input.
(6)	S Sensitive...	Displays the measured S-sensitivity.
(7)	Ave S Val	Displays the measured average signal value • standard deviation.
(8)	Static	Displays “Calculating” during measurement, and “reference value” after the measurement.

13.32.8 “Measure: Corrected Mural Measure” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Analyze] --> [Image] --> [Measure (M)] --> “Measure unevenness after Calibrate (H)”



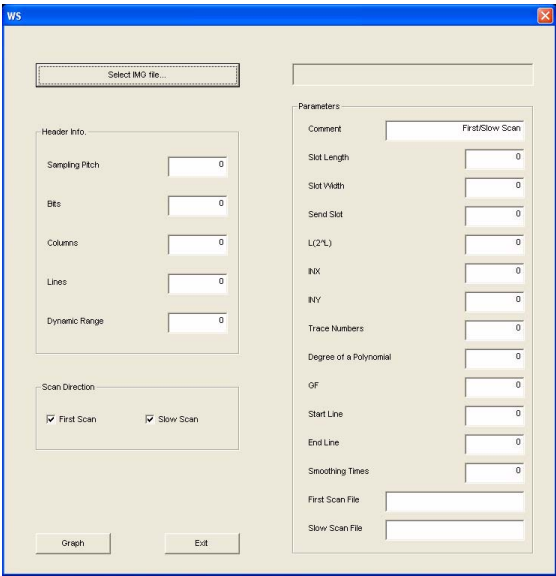
	Key/Item	Function
(1)	Measure area [pixel out]	Input the pixels for each side (up/down, R/L), which should be excluded from the measuring area
(2)	[Execute]	Execute the S-sensitivity measurement.
(3)	[Clear]	Clear the items displayed or input.
(4)	Ave Signal Val:	Displays the measured average signal value.
(5)	Variance	Displays the measured distribution.
(6)	Static	Displays “Calculating” during measurement, and “measured result” after the measurement.

13.33 [Analyze] > [WS], [MTF]

13.33.1 “WS (Analyze)” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Analyze] --> [WS]

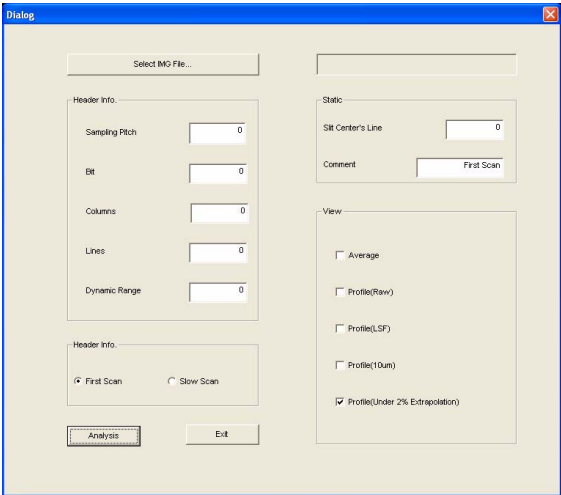


Key/Item	Function
[Select IMG file]	Selects the image file to be referred to. <ul style="list-style-type: none">Files with “img” and “ihd” can be selected.File name of the selected will be shown on the right of the button.
Header Info.	Displays the information concerning the image header.
Scan Direction	Analysis will be made only on the direction that is selected by checking. <ul style="list-style-type: none">Either direction or both directions are selectable.
Parameters	Displays the various parameters concerning the WS analysis.
[Graph]	Displays the graph for WS analysis.

13.33.2 “MTF” Screen

Start up from the sytem menu	●	Start up from the REGIUS Service Screen	●
------------------------------	---	-----------------------------------------	---

Display Procedure ●●●● [Analyze] --> [MTF]



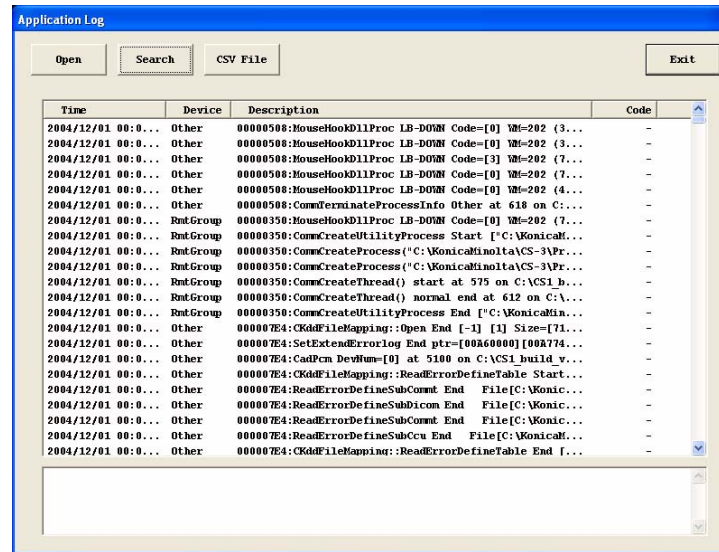
Key/Item	Function
[Select IMG File]	Selects the image file to be referred to. <ul style="list-style-type: none">Files with “img” and “ihd” can be selected.File name of the selected will be shown on the right of the button.
Header Info. Area	Displays the information concerning the image header.
Header Info.	Analysis will be made only on the direction that is selected by checking. <ul style="list-style-type: none">Either direction or both directions are selectable.
Static	Various parameters concerning the image.
View	Select by means of check box the display type of the analyzed result.
[Analysis]	Initiates the MTF analysis.

13.34 [Analyze] > [App Log], [Sys Log]

13.34.1 “Application Log” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Analyze] --> [App Log]



Key/Item	Function
[Open]	Select the date of the log that you want to display. <ul style="list-style-type: none"> Displays the read list dialogue on which the dates and logs are listed.
[Search]	Clicking on this button will display a dialogue for setting the term within which the logs are collected. <ul style="list-style-type: none"> Displays the search screen
[CSV File]	Outputs the collected logs in CSV file format.
Log File List	Displays the list of logs which are screened by date or other conditions.
[Exit]	Exits the “Application Log” screen.

13.34.2 “Search” Screen

Display Procedure •••• [Analyze] --> [App Log] --> [Search]

Key/Item	Function
Period	
Period	Set the time range in which the events occurred and to be displayed. Check “Period”, and set the time range for the events.
Start/End	Set the start and end time for specific event.
Device	
Processing	Displays the events of specific device. Check “Device”, and select the device for which the events shall be displayed.
Device	Check the device name for which the event shall be displayed.
Description	
Description	Displays the event which has an specific character strings in the message. Check “Description”, and input the character string to be searched.
Character Strings	Input the character string to be searched.
Operation Log	
Operation Log	Check to displays the work log only.
[OK]	Exits the “Search Option” screen after completing the search. <ul style="list-style-type: none"> • The events searched with the specific condition will be shown in the application log field.
[Cancel]	Exit the “Search Option” screen without completing the search.

- When several search conditions are set, only the event that satisfies the all search condition will be shown.

13.34.3 “System Log Info.” Screen

Start up from the sytem menu	<input checked="" type="radio"/>	Start up from the REGIUS Service Screen	<input checked="" type="radio"/>
------------------------------	----------------------------------	-----------------------------------------	----------------------------------

Display Procedure •••• [Analyze] --> [Sys Log]

Item1	Item2	Data
Total		0
Sheets(Retry)		0
Sheets(Reading)	8x10 inches	0
	10x12 inches	0
	11x14 inches	0
	14x14 inches	0
	14x17 inches	0
	17x17 inches	0
	18x24 cm(Regular)	-
	18x24 cm(Mammo)	-
	24x30 cm(Regular)	-
	24x30 cm(Mammo)	-
After the Last Ca...		0
Total from the in...		0
Date of the Last ...		12/31/1969 1...

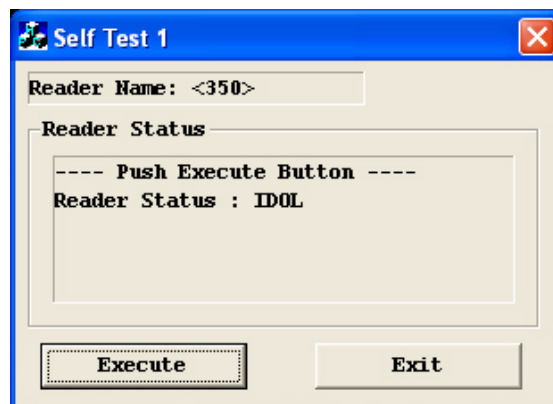
Key/Item	Function
“System Log Select” Menu	Select the log type from below, which categorizes the logs created during the exposure. Reader1 Read Info. ••• Displays the total cassette read on each reader device. Reader1 Counter2 ••• Displays the total image cont that has been read in the past. Edit Image Counter ••• Displays the image count that has been changed in processing method. Image Output Counter ••• Displays the already output count for each output destination. Error Counter ••• Displays the error occurred on the CS-3 in the past with classification according to the error contents.
Log List Field	Displays the list of information that is selected in the system log select menu.
[Reset]	Set the count such as sheet count to “0”. <ul style="list-style-type: none"> Clicking on this button displays a confirming dialogue.
[CSV File]	Outputs the event logs displayed on the event logs details column in CSV file format.
[Exit]	Exits the “SystemLog Info.” screen.

13.35 [Analyze] > [Self Test]

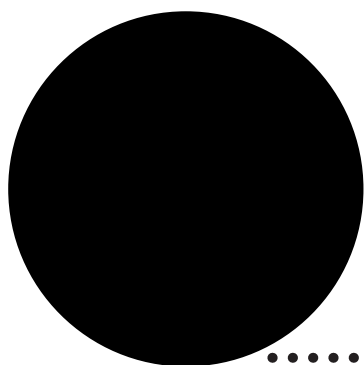
13.35.1 “Self Test1” Screen

Start up from the sytem menu	<input type="radio"/>	Start up from the REGIUS Service Screen	<input type="radio"/>
------------------------------	-----------------------	-----------------------------------------	-----------------------

Display Procedure •••• [Analyze] --> [Self Test]



Key/Item	Function
Reader Status	Displays the status of the reader. <ul style="list-style-type: none"> Displays an error message if an error occurs during initialization.
[Execute]	Clicking on this button initiates the initialization of the reader device. Self-diagnosis over the memory, mechanical position (motors/sensors), electrical components (board) is performed as is the case when turning the power breaker of the reader OFF/ON.
[Exit]	Switches to the “Analyze” screen without initialization.



A p p e n d i x

In this chapter, technical information that can be helpful for the installation work, and installation procedures for the optional wall type operation unit are described.

A.1 List of Differences
between CS-3 and
CS-1

Under Construction

A.2 Stamp Item Selection List

Followings are the items that can be selected in “Item Name Setting” of “Stamp”.

Item Name	Selectable Display Form (refer to the table in the right)
(Undefined)	---
Institution Name	A
Section Name	A
Requested Service	A
Image Date	B
Image Time	C
Patient ID	A
Name	D
Other ID	A
Other Name	D
Sex	A
Age	E
D.O.B	B
Patient Comments	A
Study Comments	A
Body Part	A
Study ID	---
Mag. mode(integer)	---
Mag. mode(float)	---
ExamTag Group	A
ExamTag Name	A
LUT	---
L	A
H	A
S	A
G	A
Shift	A
Rotate	A
E ON/OFF	A
F ON/OFF	A
E b1	A
E bh	A
F b1	A
F b2	A
F MaskSize	A
Operator	D
Plate ID	A
Copies	A
Study	A
Series	A

A	(Undefined)
	Convert to Hex
	2-byte Character
	Divide 100
	Decimal down 2
	OFF/ON
	Yes/No
	Marker Position
	Sex Entry
	No Sex Entry

B	"Date(JP-YYYY)"
	"Date(JP-YY)"
	"Date(JP-JP)"
	"Date(US-YYYY)"
	"Date(US-YY)"
	"Date(US-JP)"

C	"Time(JP-HH+MM+SS)"
	"Time(JP-HH+MM)"
	"Time(US-HH+MM+SS)"
	"Time(US-HH+MM)"

D	Personal name alphabet
---	------------------------

E	"Age(old)"
---	------------

A.3 Set Up of RIS Information according to Type

How the CS-3 acquires the Exam/Patient Info. will vary depending on the system configuration, operation style of each institute.
In this paragraph, examples of typical set-ups are listed in order to explain the difference that should be noted at the installation.

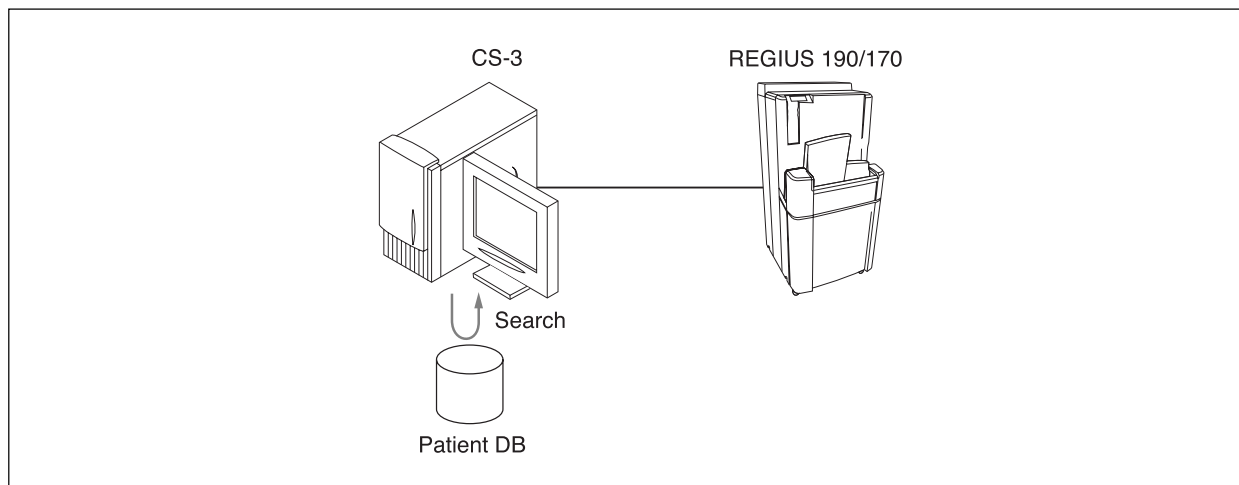
A.3.1 System Configuration

Type	CS-3 Connection	upper stream system	Operation
TypeA	1 to 1	none	System where the patient information is input/searched on CS-3. Patient DB resides in CS-3's local disk.
TypeB	n to m	RIS/MAS not available. ID-680S/SM available. Order issue not practiced.	Input the patient ID on CS-3, and search the patient information via network. New patient information is input using CS-3. Patient DB resides in ID-680S/SM.
TypeC		RIS/MAS or front-end reception available. ID-680S/SM available.	Input the exam information using RIS/MAS or ID-680TM. Search from one CS-3 will allow all CS-3s to have same search list screen. Patient DB resides in ID-680S/SM. Operation of RIS/MAS can be limited within the normal work hours, and the patient DB on ID-680S/SM can be searched during night and for emergency case.
TypeD		RIS/MAS or front-end reception available. ID-680S/SM available.	Input the exam information and X-ray room classification using RIS/MAS or ID-680TM, or input the exam information using RIS/MAS, while X-ray room classification using ID-680TM. Search from one CS-3 will allow to display different exam. list on each CS-3 (X-ray room). Patient DB resides in ID-680S/SM. Operation of RIS/MAS can be limited within the normal work hours, and the patient DB on ID-680S/SM can be searched during night and for emergency case.
TypeE		RIS/MAS or front-end reception available. ID-680S/SM available.	Input the exam information using RIS/MAS or ID-680TM. Search shall be made by CS-3 for each examination. Patient DB resides in ID-680S/SM. Operation of RIS/MAS can be limited within the normal work hours, and the patient DB on ID-680S/SM can be searched during night and for emergency case.
TypeF		RIS or front-end RIS available. ID-680S/SM available.	Selects the exam. information on front-end RIS, and the information is sent to CS-3 via ID-680S/SM. Patient DB resides in ID-680S/SM.

MAS : Medical Administration System

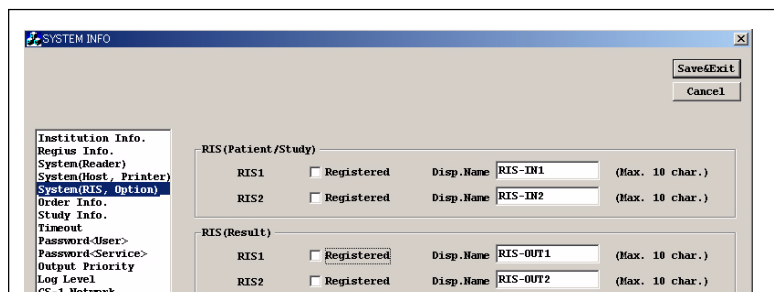
A.3.2 Set Up of Type A

In the configuration “Type A”, patient ID shall be input using “Exam. Search” screen, and the search is made from the patient data base stored in the CS-3’s HDD.



Setting the System Configuration

Since “Type A” configuration does not have an upper stream system, set all “Registered” check boxes for “RIS (Patient/Study)” of “System (RIS Option)” screen to “OFF”.



Setting the RIS Information

Since there is no registration of device, no need to carry out setting.

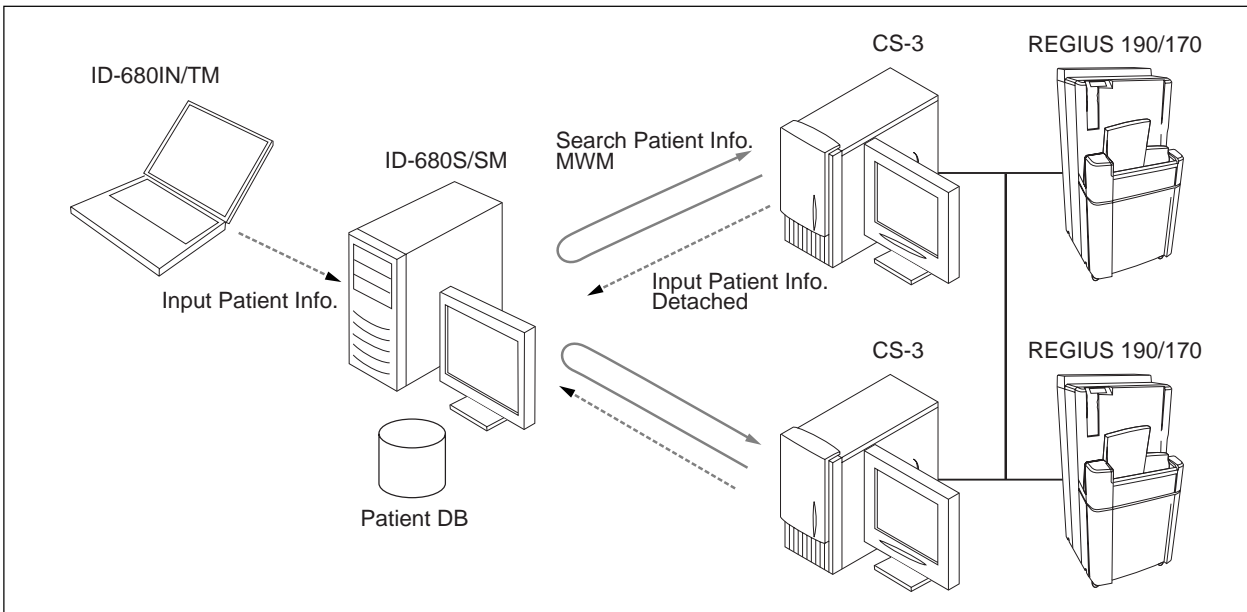
Importing the Patient DB

To import the patient DB from the existing devices in the institute at the time of installation, follow the procedures "13.14 [Console] > [Patient DB]" , and import the patient DB.

A.3.3 Set Up of Type B

In the configuration “Type B”, no order is sent from the upper stream system. Input the Patient ID on “Exam. Search” screen of CS-3 according to the order list, and search the patient information from the Patient DB stored in ID-680S/SM.

For the new patient information, use either CS-3 or ID-680IN/TM to input.



Setting the System Configuration

On “System (RIS Option)” screen of “SYSTEM INFO”, set “Registered” of “RIS (Patient/Study)” and “RIS (Result)” to “ON”.

Institution Info. Regius Info. System(Reader) System(Printer) System(CT/DR) Order Info. Study Info. Inout Password-User Password-Service Input Priority Log Level S-1 Network	RIS (Patient/Study)	
	RIS1	<input checked="" type="checkbox"/> Registered
	RIS2	<input type="checkbox"/> Registered
	Disp. Name RIS-IN1 (Max. 10 char.) Disp. Name RIS-IN2 (Max. 10 char.)	
	RIS (Result)	
	RIS1	<input checked="" type="checkbox"/> Registered
	RIS2	<input type="checkbox"/> Registered
	Disp. Name RIS-OUT1 (Max. 10 char.) Disp. Name RIS-OUT2 (Max. 10 char.)	

Setting the RIS Information (Patient/Study)

Set the condition with which the Patient DB of ID-680S/SM is searched.

1. On “RIS INFO (Command)” screen, select “Modality Worklist (MWM)”.

Command	Modality Worklist (MWM)
Service Class	
Change Screen while <input type="checkbox"/> Off Detached Only	

2. On “RIS INFO (TCP • IP)” screen, set the TCP/IP according to the ID-680S/SM.

3. On “RIS INFO (Modality Worklist)” screen, select “Search + Get List” for “Trigger”.

- Set all scopes of search for “Property (Search)” and “Property (Get List)” to “Not Specified”.
- Leave “AE Title” blank.

Setting the RIS Information (Result)

Set the condition with which the patient information newly input or revised on the CS-3 shall be registered on the patient DB of ID-680S/SM.

1. Set “Service Class” on “RIS INFO (Command)” screen to [Detached].

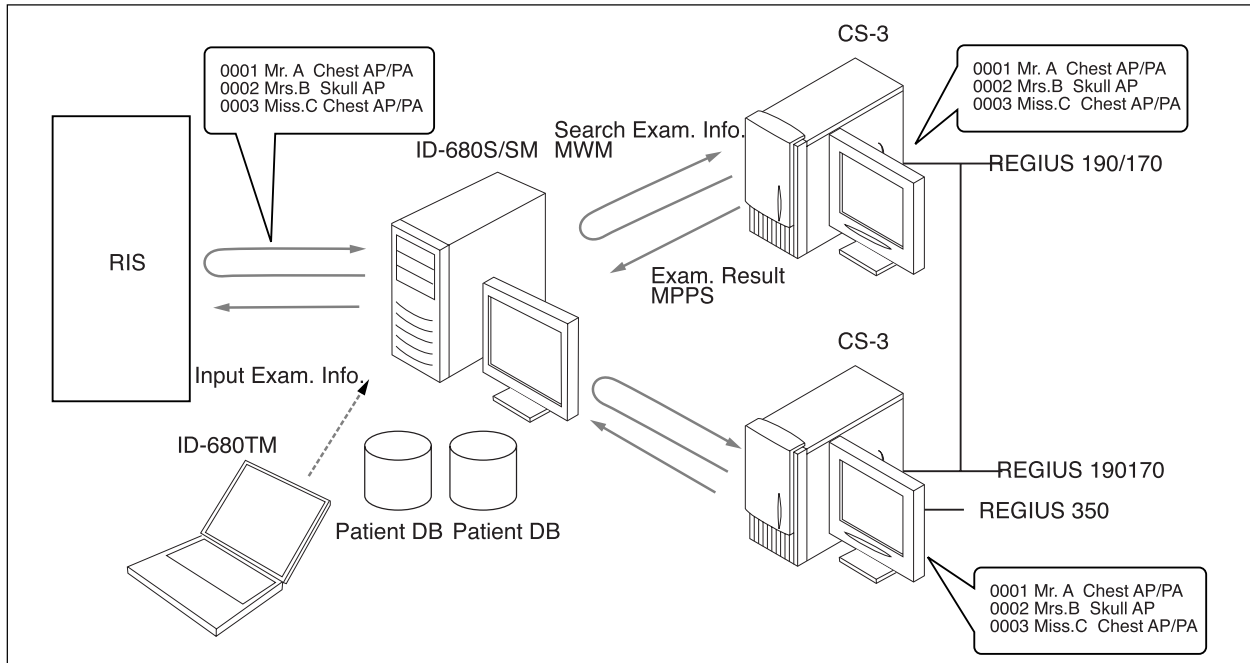
2. To reflect the changes of the patient DB manipulated on the CS-3 to that of ID-680S/SM from which an original search was made, check [ON] for “Change Screen While”.
When “Change Screen While” is set to [OFF], only the patient information that is newly input on the CS-3 will be registered on the Patient DB.

A.3.4 Set Up of Type C

In the configuration "Type C", exam. information shall be input using either RIS/MAS or ID-680TM.

ID-680S/SM acquires the exam. information from RIS/MAS via MWM or FTP, then register them on the Exam. DB.

CS-3 acquires the exam. list from ID-680S/SM via MWM. Here, a same list will be shown on all exam. list screens of CS-3.



- In this configuration, it becomes necessary to convert the exam. body part information to the exam. tags of CS-3, which is included in the order sent from the RIS/MAS. Since this exam. body part information (Body Part Code) is different from one institute to the other, contact the administrator of the sytem in advance before the conversion table is created. Conversion to the exam. keys can be manipulated both on CS-3 or ID-680S/SM. Refer to "[A.4 Conversion of Exam. Keys](#)" to implement this operation on CS-3.

Setting the System Configuration

On “System (RIS Option)” screen of “SYSTEM INFO”, set “Registered” of “RIS (Patient/Study)” and “RIS (Result)” to “ON”, and input the display name.

Info.	Info.	Info.	Info.
Net			
Card-User			
Card-Service>			
# Priority			
Level			
Network			

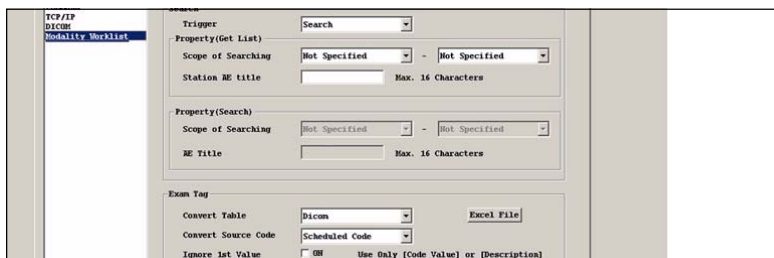
Setting the RIS Information (Patient/Study)

Set the condition with which the Patient DB of ID-680S/SM is searched.

1. On “RIS INFO (Command)” screen, select “Modality Worklist (MWM)”.

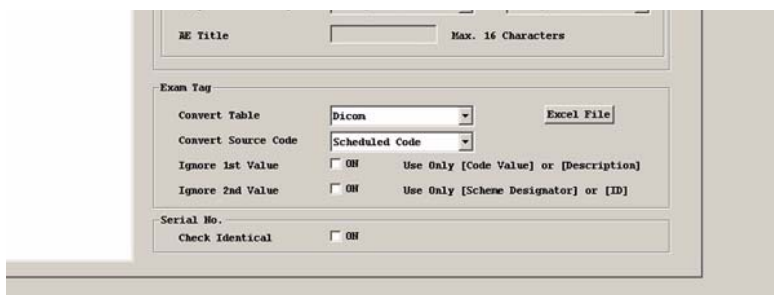


2. Set “RIS INFO (TCP • IP)” screen and “RIS INFO (DICOM)” screen according to the ID-680S/SM.
3. On “RIS INFO (Modality Worklist)” screen, select “Search + Get List” for “Trigger”.



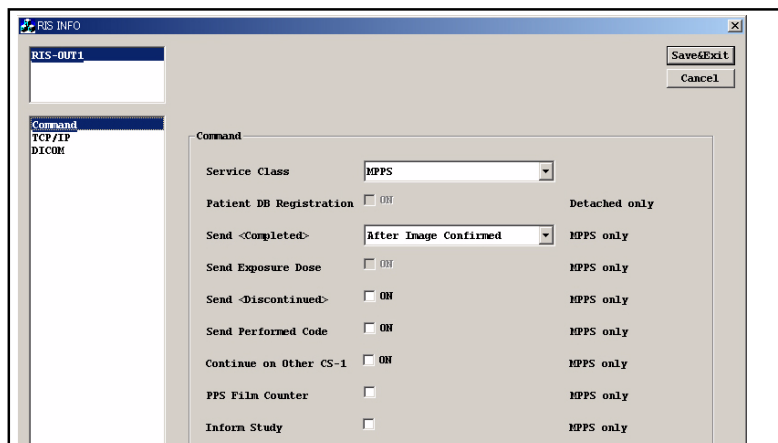
- Set all scopes of search for “Property (Search)” and “Property (Get List)” to “Not Specified”.
- Leave “AE Title” blank.

4. Set the condition for the conversion table on “Exam Tag” field.
5. Click [Excel File] to read the conversion table file that was created in advance.



Setting the RIS Information (Result) Set the condition to return the search result to RIS.

1. Set "Service Class" on "RIS INFO (Command)" screen to [MPPS].



2. Set the items "Send <Completed>" and below according to the operation style of the institute.
3. Set "RIS INFO (TCP • IP)" screen and "RIS INFO (DICOM)" screen according to the ID-680S/SM.

A.3.5 Set Up of Type D

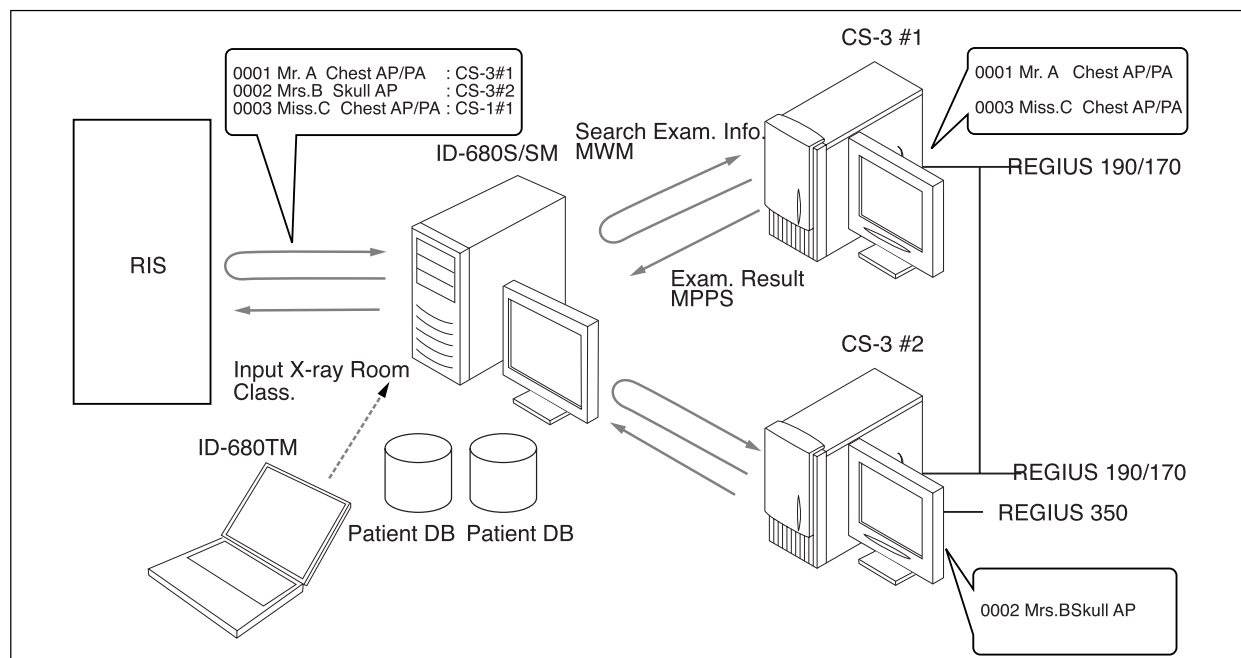
In the configuration “Type D”, there are two possible cases.

- Exam. information as well as X-ray room classification is input using RIS/MAS.
- Exam. information is input using RIS/MAS, while X-ray room classification is input using ID-680TM.

ID-680S/SM acquires exam. information and X-ray room classification from RIS/MAS or ID-680TM, then register it in examination DB.

CS-3 acquires exam. list from ID-680S/SM using MWM. However, in this case, ID-680S/SM delivers the exam. information to each CS-3 according to the X-ray room classification.

On the exam. list screen of CS-3, only those exam. informations which will be used on that CS-3.



- In this configuration, it becomes necessary to convert the exam. body part information to the exam. tags of CS-3, which is included in the order sent from the RIS/MAS. Since this exam. body part information (Body Part Code) is different from one institute to the other, contact the administrator of the system in advance before the conversion table is created. Conversion to the exam. keys can be manipulated both on CS-3 or ID-680S/SM. Refer to "A.4 Conversion of Exam. Keys" to implement this operation on CS-3.

Setting the System Configuration

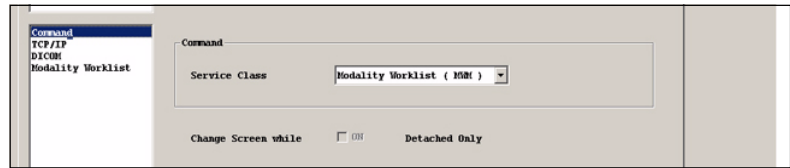
On “System (RIS Option)” screen of “SYSTEM INFO”, set “Registered” of “RIS (Patient/Study)” and “RIS (Result)” to “ON”, and input the display name.

System (RIS Option)			
RIS (Patient/Study)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-IN1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-IN2 (Max. 10 char.)
RIS (Result)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-OUT1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-OUT2 (Max. 10 char.)

Setting the RIS Information (Patient/Study)

Set the condition with which the Patient DB of ID-680S/SM is searched.

1. On “RIS INFO (Command)” screen, select “Modality Worklist (MWM)”.



2. Set “RIS INFO (TCP • IP)” screen and “RIS INFO (DICOM)” screen according to the ID-680S/SM.

3. On “RIS INFO (Modality Worklist)” screen, select “Search + Get List” for “Trigger”.



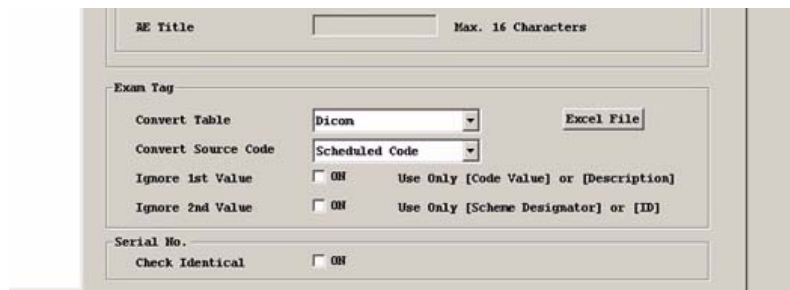
- Set all scopes of search for “Property (Search)” and “Property (Get List)” to “Not Specified”.

4. Input a name in “AE Title” so that it can discriminate the CS-3s.

- “AE Title” is the information with which ID-680S/SM can discriminate the CS-3s (X-ray room). Input a name unique to each CS-3 (CS1-0001, CS1-0002, etc.) according to the classification assigned by RIS/Medical System or by ID-680TM.

5. Set the condition for the conversion table on “Exam Tag” field.

6. Click [Excel File] to read the conversion table file that was created in advance.



Setting the RIS Information (Result) Set the condition to return the search result to RIS.

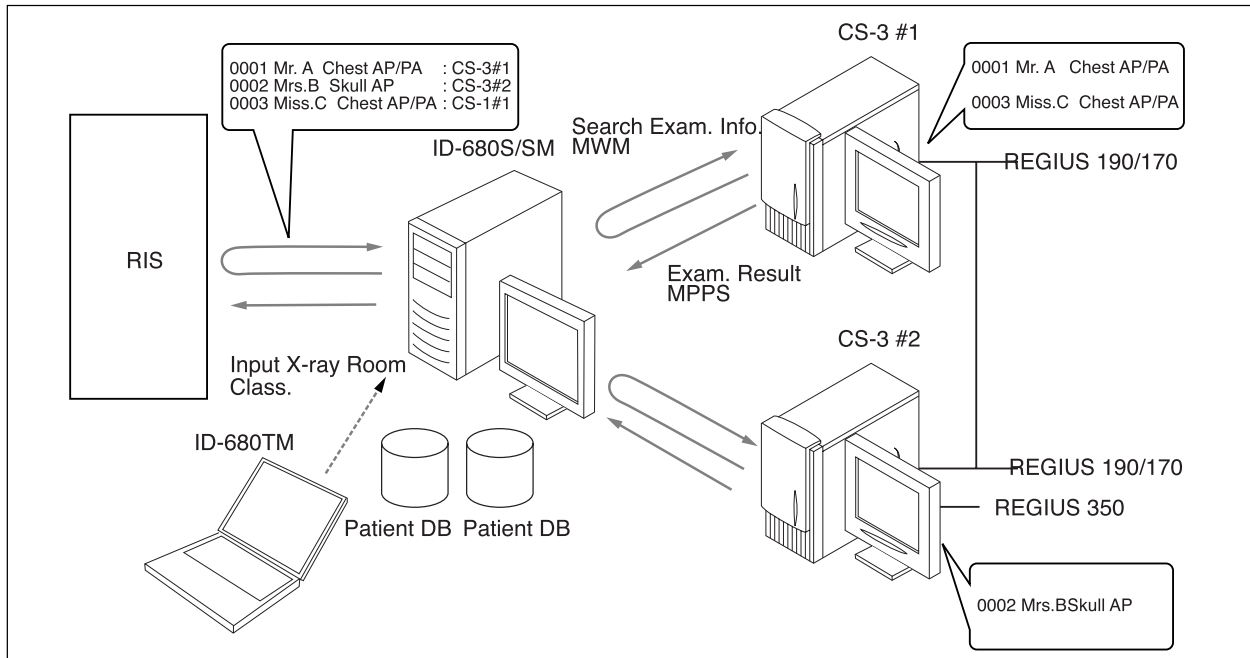
1. Set "Service Class" on "RIS INFO (Command)" screen to [MPPS].

2. Set the items "Send <Completed>" and below according to the operation style of the institute.
3. Set "RIS INFO (TCP • IP)" screen and "RIS INFO (DICOM)" screen according to the ID-680S/SM.

A.3.6 Set Up of Type E

In this configuration “Type E”, CS-3 searches the exam. information for each exam., and acquires the information.

ID-680S/SM acquires the exam. information from RIS/MAS or ID-680TM, and registers in the exam. DB. Exam. DB will be searched according to the search information sent from the CS-3, and sends the exam. information which matches the request to the CS-3. the exam. Information which the CS-3 has searched by itself will be displayed on the exam. list screen of CS-3.



- In this configuration, it becomes necessary to convert the exam. body part information to the exam. tags of CS-3, which is included in the order sent from the RIS/MAS. Since this exam. body part information (Body Part Code) is different from one institute to the other, contact the administrator of the sytem in advance before the conversion table is created. Conversion to the exam. keys can be manipulated both on CS-3 or ID-680S/SM. Refer to "A.4 Conversion of Exam. Keys" to implement this operation on CS-3.

Setting the System Configuration

On “System (RIS Option)” screen of “SYSTEM INFO”, set “Registered” of “RIS (Patient/Study)” and “RIS (Result)” to “ON”, and input the display name.

The screenshot shows the 'SYSTEM INFO' screen with the 'System (RIS Option)' menu item selected. The screen displays settings for RIS (Patient/Study) and RIS (Result).

RIS (Patient/Study)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-IN1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-IN2 (Max. 10 char.)

RIS (Result)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-OUT1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-OUT2 (Max. 10 char.)

On the left side of the screen, a list of menu items is visible: Institution Info., Regius Info., System(Reader), System(Host, Printer), System(RIS, Option), Order Info., Study Info., Timeout, Password-User, Password-Service, Output Priority, Log Level, and CS-1 Network.

Setting the RIS Information (Patient/Study)

Set the condition with which the Patient DB of ID-680S/SM is searched.

1. On “RIS INFO (Command)” screen, select “Modality Worklist (MWM)”.

2. Set “RIS INFO (TCP • IP)” screen and “RIS INFO (DICOM)” screen according to the ID-680S/SM.

3. On “RIS INFO (Modality Worklist)” screen, select “Search + Get List” for “Trigger”.

- Set all scopes of search for “Property (Search)” and “Property (Get List)” to “Not Specified”.
- Leave “AE Title” blank.

4. Set the condition for the conversion table on “Exam Tag” field.
5. Click [Excel File] to read the conversion table file that was created in advance.

Setting the RIS Information (Result) Set the condition to return the search result to RIS.

1. Set "Service Class" on "RIS INFO (Command)" screen to [MPPS].

The screenshot shows the 'RIS INFO (Command)' screen with the following settings:

Option	Value	Notes
Service Class	MPPS	
Patient DB Registration	<input type="checkbox"/> ON	Detached only
Send <Completed>	After Image Confirmed	MPPS only
Send Exposure Dose	<input type="checkbox"/> ON	MPPS only
Send <Discontinued>	<input type="checkbox"/> ON	MPPS only
Send Performed Code	<input type="checkbox"/> ON	MPPS only
Continue on Other CS-1	<input type="checkbox"/> ON	MPPS only
PPS Film Counter	<input type="checkbox"/>	MPPS only
Inform Study	<input type="checkbox"/>	MPPS only

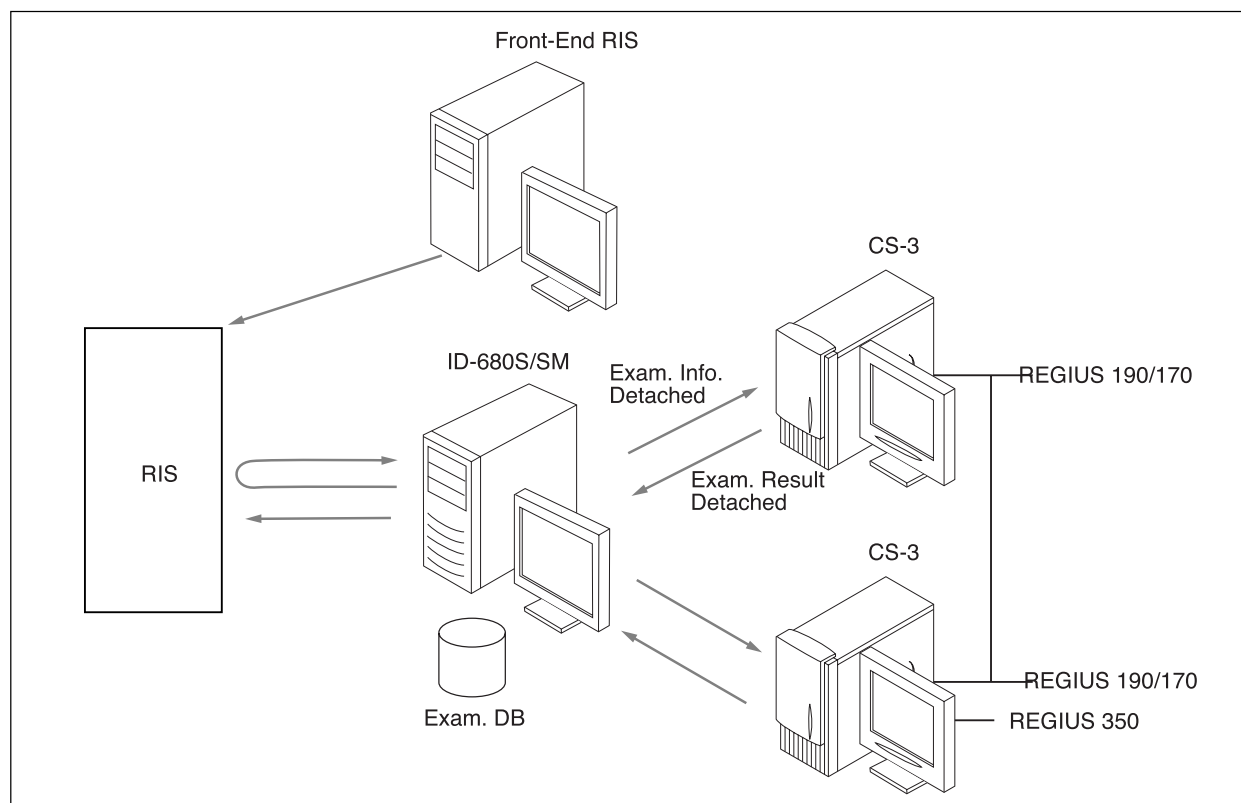
2. Set the items "Send <Completed>" and below according to the operation style of the institute.
3. Set "RIS INFO (TCP • IP)" screen and "RIS INFO (DICOM)" screen according to the ID-680S/SM.

A.3.7 Set Up of Type F

In the configuration “Type F”, exam. informality shall be selected on the front-end RIS, and sent to the CS-3(s) via ID-680S/SM.

ID-680S/SM sends the exam. information received from RIS/MAS to the CS-3(s) using “Detached”.

Exam. information sent from the front-end RIS will be displayed on the “Exam. Search” screen of CS-3.



- In this configuration, it becomes necessary to convert the exam. body part information to the exam. tags of CS-3, which is included in the order sent from the RIS/MAS. Since this exam. body part information (Body Part Code) is different from one institute to the other, contact the administrator of the system in advance before the conversion table is created. In this configuration “Type F”, conversion to exam. key shall be made on ID-680S/SM side.

Setting the System Configuration

On “System (RIS Option)” screen of “SYSTEM INFO”, set “Registered” of “RIS (Patient/Study)” and “RIS (Result)” to “ON”, and input the display name.

System (RIS Option)			
Institution Info. Regius Info. System(Reader) System(Host Printer) System(RIS Option) Order Info. Study Info. Timeout Password-User Password-Service Output Priority Log Level CS-1 Network			
RIS(Patient/Study)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-IN1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-IN2 (Max. 10 char.)
RIS(Result)			
RIS1	<input checked="" type="checkbox"/> Registered	Disp. Name	RIS-OUT1 (Max. 10 char.)
RIS2	<input type="checkbox"/> Registered	Disp. Name	RIS-OUT2 (Max. 10 char.)

Setting the RIS Information (Patient/Study)

Set the condition with which the Patient DB of ID-680S/SM is searched.

1. On "RIS INFO (Command)" screen, select "Modality Worklist (MWM)".

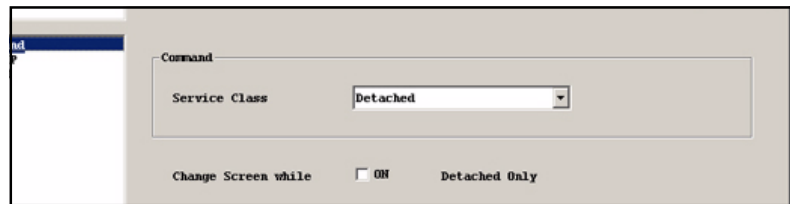


2. Set "RIS INFO (TCP • IP)" screen and "RIS INFO (DICOM)" screen according to the ID-680S/SM.

Setting the RIS Information (Result)

Set the condition to return the search result to RIS.

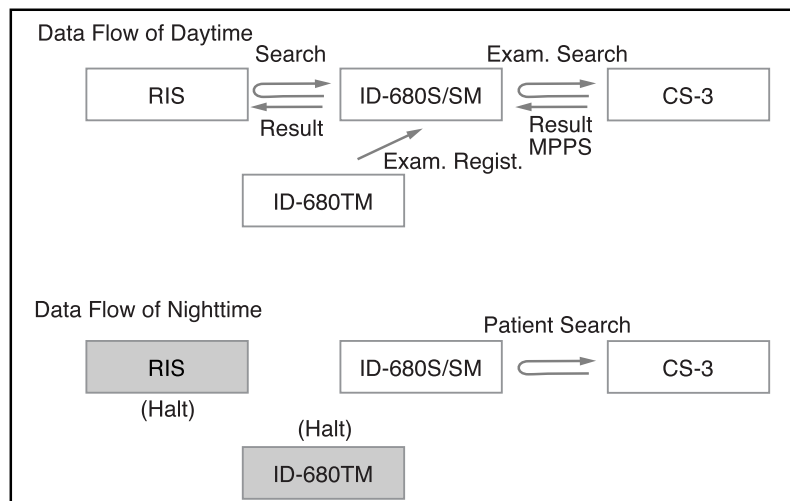
1. Set "Service Class" on "RIS INFO (Command)" screen to [MPP].



2. Set "Change Screen While" to [OFF] (no check).
3. Set "RIS INFO (TCP • IP)" screen and "RIS INFO (DICOM)" screen according to the ID-680S/SM.

A.3.8 Switching the Data Flow

In the configuration like "Type C", "Type D" and "Type E", it is possible to configure the operation system where during work hours (daytime), exam. information is input using RIS/MAS or front-end input system while in the night without using them. In this case, the data flow shall be switched between the day time and night time.



In the operation of nighttime, input the patient ID on CS-3, and search the exam. information from ID-680S/SM.

ID-680S/SM first searches the reservation that corresponds to the exam. DB acquired from RIS. If there is no corresponding reservation, it automatically search in the patient DB, and returns the corresponding patient DB to the CS-3.

However, please note that the patient information newly input on the CS-3 cannot be registered in the patient DB of ID-680S/SM.

If the patient information newly input on the CS-3 is to be registered in the patient DB of ID-680S/SM, register the same RIS (ID-680S/SM) on “RIS2” of “RIS (Result)”, and set up the condition using “Detached” so that the patient information can be registered.

In this paragraph, procedures are described assuming that “Type C”, “Type D” or “Type E” has been set up for daytime operation.

- When the above setting is made, it is necessary to request the user to operate the system in the nighttime while switching the standard RIS (RIS1) to backup RIS (RIS2) using the “System Status” screen.

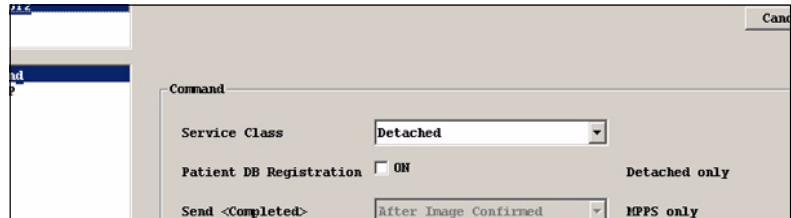
Setting the System Configuration

Set “Registered” for both “RIS1” and “RIS2” of “SYSTEM INFO (RIS•Option)” to “ON”.

info.		RIS(Patient/Study)			
Printer) ption)	RIS1	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-IN1	(Max. 10
	RIS2	<input type="checkbox"/> Registered	Disp.Name	RIS-IN2	(Max. 10
		RIS(Result)			
ice> ty	RIS1	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-OUT1	(Max. 10
	RIS2	<input checked="" type="checkbox"/> Registered	Disp.Name	RIS-OUT2	(Max. 10

Setting the RIS Information (Patient/Study)	Leave the setting for “RIS (Patient/Study)” unchanged.
Setting the RIS INFO (Result)	Set the RIS2.

1. On “RIS INFO (Command)” screen, select the RIS name for “RIS2”.



2. Set the “Service Class” of “Command” to [Detached].
3. To reflect the changes of the patient DB manipulated on the CS-3 to that of ID-680S/SM from which an original search was made, check [ON] for “Always Register in Patient DB”.
When the “Always Register in Patient DB” is set to “OFF”, only those newly input on the CS-3 will be registered in the Patient DB.
4. Set “RIS INFO (TCP • IP)” screen and “RIS INFO (DICOM)” screen identical to those of “RIS1”.

Setting the above will allow the system to operate the same as the “Type B” during nighttime.

A.4 Conversion of Exam. Keys

A.4.1 Devices to Implement Conversion of Exam. Keys

Examination body part (Body Part Code) that is contained in the exam. information issued by RIS/MAS can be converted into exam. keys either on CS-3 or ID-680SM.

◆ Conversion on CS-3

When it is necessary to return the examined body part of exam. result to RIS, use CS-3 to convert. Nothing should be converted on ID-680SM.

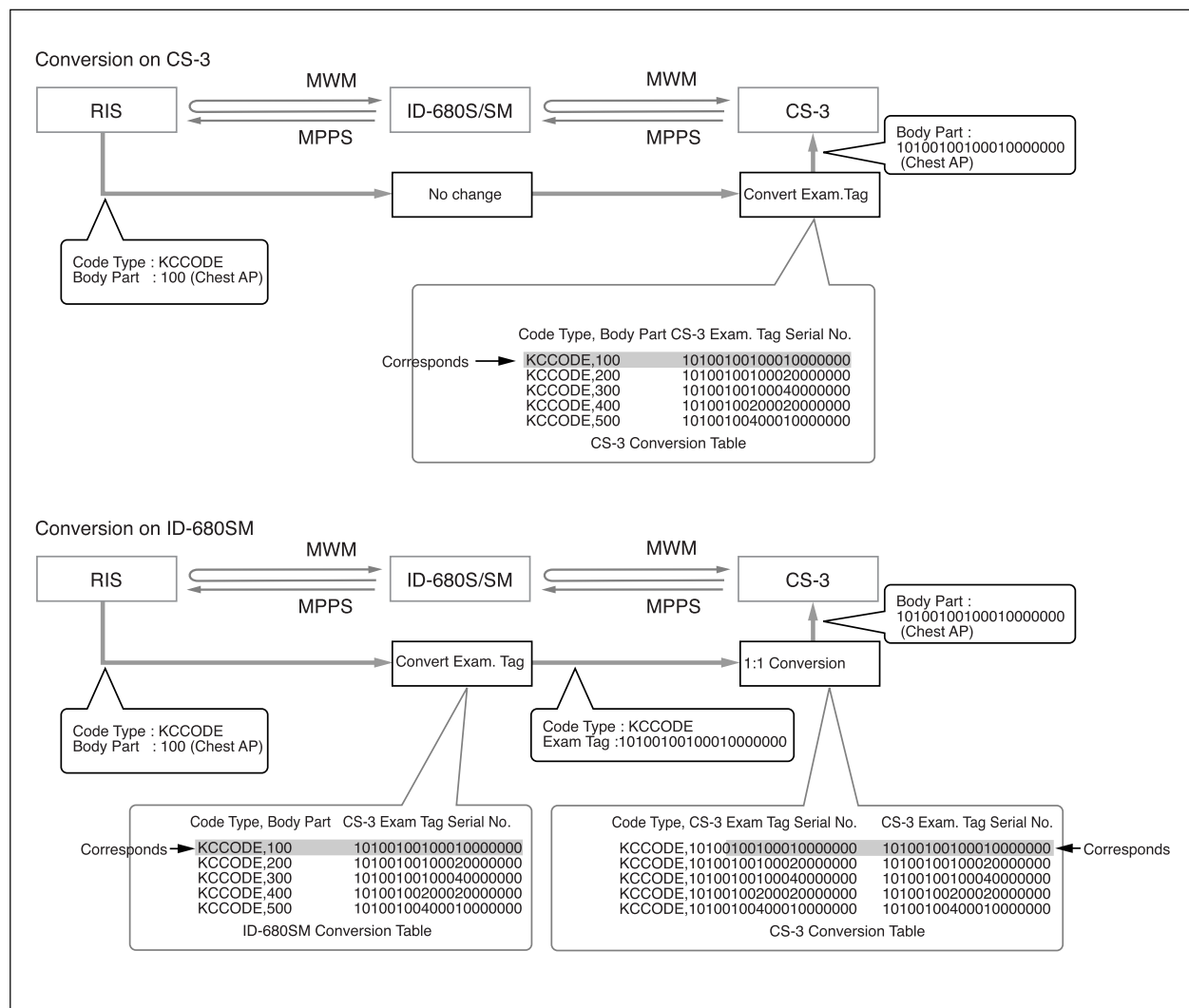
In this case, create a conversion table on the CS-3.

◆ Conversion on ID-680SM

When it is necessary to employ the conversion method which is not available on CS-3, conversion should be made on ID-680SM. Code types and CS-3 exam. key serial No. will be output from ID-680SM.

On the CS-3, conversion will be made 1 to 1 using the same value.

- Refer to “Installation/Service” manual of ID-680SM when conversion is to be made on ID-680SM.
- Conversion table for “1 to 1” has been incorporated in CS-3 at the time of shipment.



Exam Tag Conversion table is comprised of the following data.

1st Row 2nd Row 3rd Row 4th Row. . .

KCCODE,100,101001001000110000
 KCCODE,101,101001001000130000
 KCCODE,103,101001001000110000,101001001000130000
 :
 :
 :
 :
 :

The data in each row implies the following depending on the type selected by "Convert Source Code" of "Exam Tag" on "RIS INFO (Modality Worklist)" screen.

1st Row	(0040,0100) Reserved Process Step Sequence >(0040,0008) Reserved Implement Item Code Sequence >>(0008,0102) Coding Descriptor
2nd Row	(0040,0100) Reserved Process Step Sequence >(0040,0008) Reserved Implement Item Code Sequence >>(0008,0100) Code Value
3rd Row	CS-3 Exam Tag Serial No.
4th Row	CS-3 Exam Tag Serial No.
:	:

1st Row	(0032,1064) Requested Process Code Sequence >(0008,0102) Coding Descriptor
2nd Row	(0032,1064) Requested Process Code Sequence >(0008,0100) Code Value
3rd Row	CS-3 Exam Tag Serial No.
4th Row	CS-3 Exam Tag Serial No.
:	:

1st Row	(0040,1001) Requested Process ID
2nd Row	(0032,1060) Requested Process Descriptor
3rd Row	CS-3 Exam Tag Serial No.
4th Row	CS-3 Exam Tag Serial No.
:	:

CS-3 searches the line whose 1st and 2nd row are respectively identical to those of the "Code Type" and "Body Part Code" sent from RIS, and converts the 3rd row below into the CS-3 exam tag Serial No. only when they are identical.

- One RIS Body Code can be converted into 1 ~ 32(max) exam. tag keys of CS-3.

How to Create the Conversion Table

Conversion table can be created using text editor of Windows or Microsoft Excel. In the following, procedures using the text editor is detailed.

1. Input the code system descriptor and body part code value sent from RIS, and corresponding CS-3 Exam Tag Serial No. being separated by comma in one line.

Ex) When the code system descriptor is "KCCODE", and the code value corresponding to the Chest AP is "100", input the data in a line as follows.

```
KCCODE,100,
```

- Always use 1 byte alphabet or digit to input.

2. Input the corresponding CS-3 Exam Tag Serial No. in the 3rd row.

Ex)

```
KCCODE,100,10100100100010000000
```

3. Repeat the step 1 through 2 for all body part codes of RIS to input corresponding CS-3 Exam Tag Serial No.

Ex)

```
KCCODE,100,10100100100010000000
KCCODE,200,10100100100020000000
KCCODE,300,10100100100030000000
```

- When the body part code of RIS has several body parts, input the corresponding CS-3 Exam Tag Serial No. in the 4th row separating from the 3rd row with comma.
- Maximum 32 CS-3 Exam Tag Serial Nos can be corresponded to one body part code.

Ex)

```
KCCODE,100,10100100100010000000
KCCODE,200,10100100100020000000
KCCODE,300,10100100100030000000,1010010010040000000,••
```

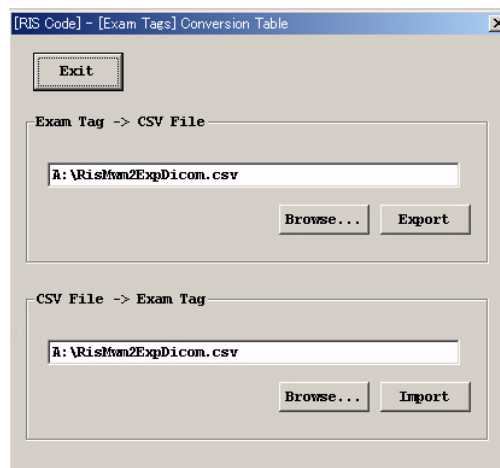
4. Save the created data with an file extension of ".csv" in the super disk.
5. Click [KONICA MINOLTA] on the CS-3 routine screen to open "Service Tool (Console)" screen.
6. Click "RIS" of "Input/Output" to open "RIS INFO (Patient/Study)".
7. Select [Modality Worklist (MWM)] in "Service Class" of "RIS INFO (Command)" screen, then select "Modality Worklist (MWM)" in the left menu.
"RIS INFO (Modality Worklist (MWM))" screen will be shown.

8. Set each item of “Exam Tag” as follows.

Item to be set	Setting
Convert Table	DICOM (1 to 1)
Convert Source Code	Scheduled Code
Ignore 1st Value	OFF (no check)
Ignore 2nd Value	OFF (no check)

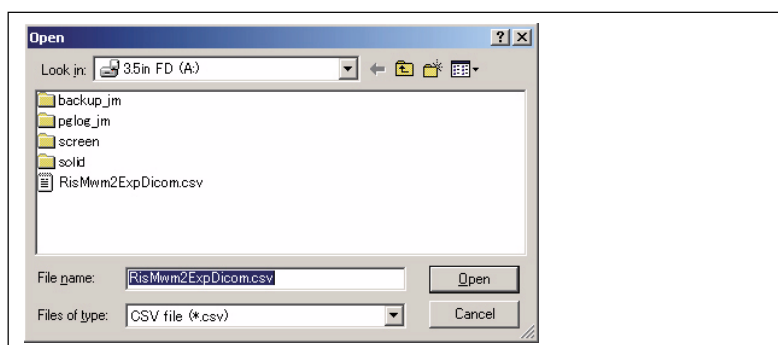
9. Click [Excel File].

“[RIS Code] - [Exam Tags] Conversion Table” screen will be shown.



10. Click [Browse. . .] of “CSV File -> Exam Tag”.

“Open” dialogue will be shown.



11. Select the file name saved in the step 4, then click [Open].

Selected file name will be shown in “CSV File -> Exam Tag” of “[RIS Code] - [Exam Tags] Conversion Table” screen.

12. Click [Import].

The file will be loaded, and the new conversion table will be created in the CS-3.

13. Click [YES] of confirmation dialogue for process completion, then click [Exit] of “[RIS Code] - [Exam Tags] Conversion Table” screen.
Screen switches to “Service Tool (Console)” screen.

History Files File Name : R1-correct.txt (History file for the Reader 1)
 R2-correct.txt (History file for the Reader 2)
 Storage Directory : C:\Konicaminolta\CS-1\Env\Data\Correct
 Format : CALIB_MODE, RESULT, PLATE_DATA-RESET, MURA_STEP,
 MAX, MIN, DIFF, DATE, COMMENT
 CALIB_MODE : Calibration Mode (0 = Serviceman Calibration, 1 =User
 calibration)
 RESULT : Calibration result (0 = Calib successful, 1 = Repeat calibration,
 2 = Calib incapable, 3 = reset to the last calibration status)
 PLATE_DATA-RESET : Flag for resetting to the plate initial data. (0 =
 Not execute, 1 = Reset to the plate initial data)
 MURA_STEP : Unevenness gain compared to the plate initial data.
 MAX : Maximum value of the read data per each field.
 MIN : Minimum value of the read data per each field.
 DIFF : Actual unevenness band width of the plate (MAX - MIN value)
 DATE : Date when the calibration is executed.
 COMMENT : Display of the plate status. Displayed on the “Calibration
 (Result)” screen.

Note 1 : “Flag for out of shutter field” is newly added in the “limit.ini” file for the latest available version as of today. Default is set to “0” (OFF). Do not change the default setting.

Note 2 : Setting the “Flag for out of shutter field” to “1” enables calibration to be carried out with the focus distance of grid. However, it does not apply correction to the out-of-shutter area, do not use this setting.

Correction data for 2-Dim calibration.

- This data will be created when serviceman calibration (Uneven Calib) or user calibration is implemented, and used for 2-Dim Calibration.

File Name

- R1-1750.cal : 2-Dim Uneven Calib data for pixel size of 175µm of the Reader 1.

- R1-875.cal : 2-Dim Uneven Calib data for pixel size of 87.5 μ m of the Reader 1.
- R2-1750.cal : 2-Dim Uneven Calib data for pixel size of 175 μ m of the Reader 2.
- R2-875.cal : 2-Dim Uneven Calib data for pixel size of 87.5 μ m of the Reader 2.
- R1.img : Data used for creating the Reader 1 correction data.
- R2.img : Data used for creating the Reader 2 correction data.

Backup data

- This data will be created when serviceman calibration (Uneven Calib) or user calibration is implemented. The last 2-Dim calibration data has been backed up.

File Name

- R1-1750.bak : The last 2-Dim Uneven Calib data for pixel size of 175 μ m of the Reader 1.
- R1-875.bak : The last 2-Dim Uneven Calib data for pixel size of 87.5 μ m of the Reader 1.
- R2-1750.bak : The last 2-Dim Uneven Calib data for pixel size of 175 μ m of the Reader 2.
- R2-875.bak : The last 2-Dim Uneven Calib data for pixel size of 87.5 μ m of the Reader 2.
- R1.bak : Data used for creating the Reader 1 correction data last time.
- R2.bak : Data used for creating the Reader 2 correction data last time.

Storage directory : E:\Image

Plate Initial Data

- This data will be created when “Initial Plate Data” is selected while serviceman calibration is implemented. This data is used for correction limit.

File Name

R1-plate.dat : Initial plate data of the Reader 1.

R2-plate.dat : Initial plate data of the Reader 2.

Storage directory : C:\konicaminolta\CS-1\Env\Data\Correct:

A.5.2 Exposing the image without calibration

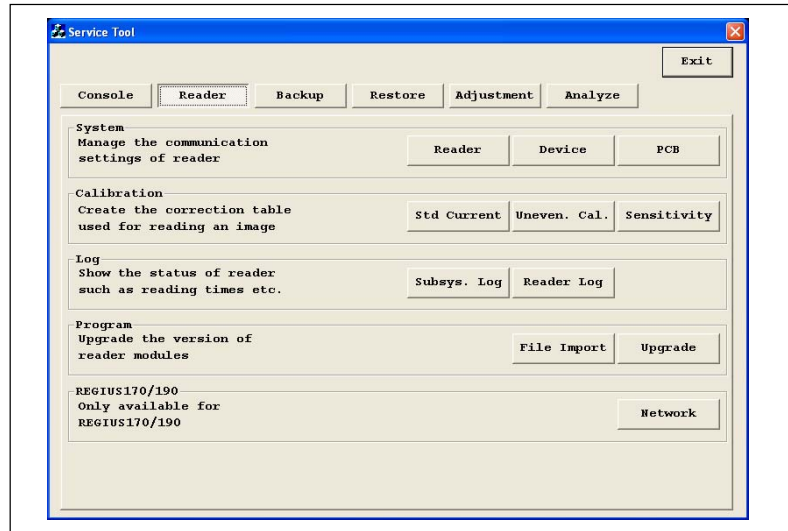
Follow the procedures below to expose the uncorrected image with the “Image uneven Correction (P Uneven Calib, 2-Dim calib)” set to “OFF”.

1. Start up “Service Tool” from “REGIUS Service” screen.

Refer to "1.6 Service Tool Screens of CS-3" to display "REGIUS Service" screen.

2. Click [Reader] of "Service Tool" screen.

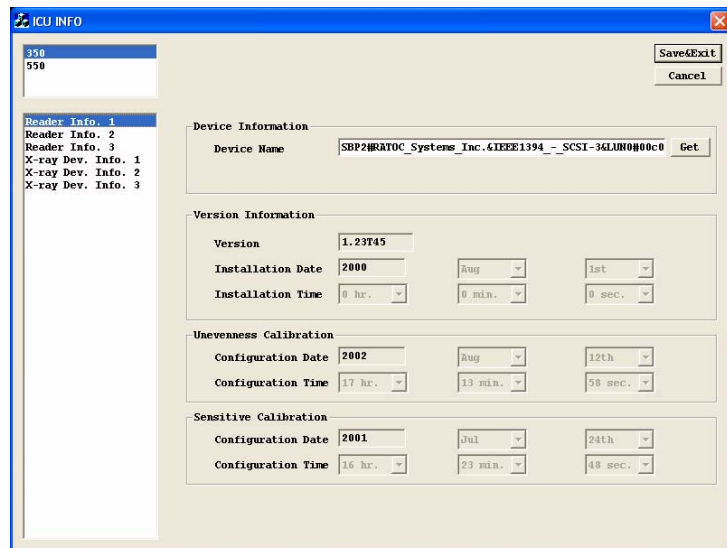
"Service Tool" screen (Reader) will be shown.



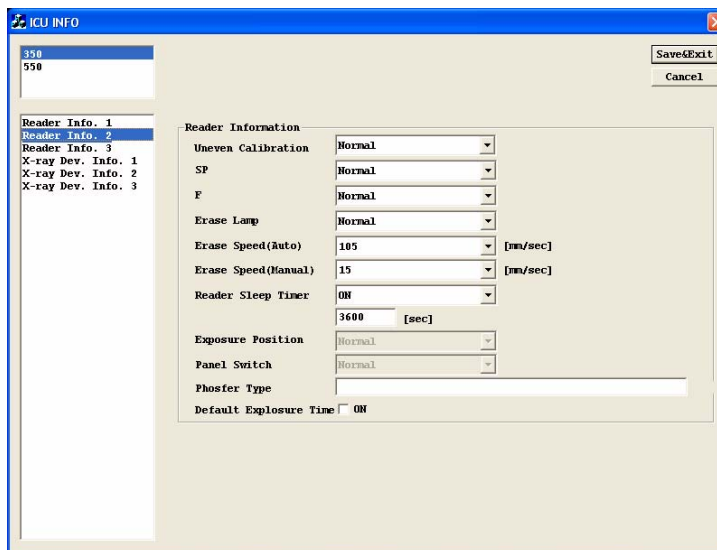
3. Click [Reader] of "System".

4. On the "Reader Select" screen, select the [Regius 350] and click [OK].

"ICU INFO" screen will be shown.



5. Select "Read Info 2" in the lower left menu.
"ICU INFO/Read Info" screen will be shown.



6. Set the "SP (Shading)" to "OFF"..
7. Click [Save & Exit], then [YES] of the confirmation dialogue.
Returns to the "Service Tool (Reader)" screen.
8. Click [Back] to exit the "Service Tool".
9. Click [Windows Desktop] of the "REGIUS Service" to open the Windows desktop.
10. Open the "C:\konicaminolta\CS-1\Image" folder, and change the file names of the following four files.
 - It is recommended to add simple extension such as "_" to the original name.

Original file name	- >	Altered file name
R1_875.cal	- >	R1_875.cal_
R1_175.cal	- >	R1_175.cal_
R2_875.cal	- >	R2_875.cal_
R2_175.cal	- >	R2_175.cal_
11. Start up the CS-1/CS-3 application, and implement an exposure following the normal procedures.
Uncorrected image will be obtained.
12. Exit the CS-1/CS-3 application, and display the Windows Desktop.

13. Rename all four files that have been altered in the step 10 to the original.

14. Start up the CS-1/CS-3 application again, and implement an exposure following the normal procedures.

<Important> Failure to rename the file names back to original may result in failure of the calibration.

A.6 Accessing External JM from CS-3

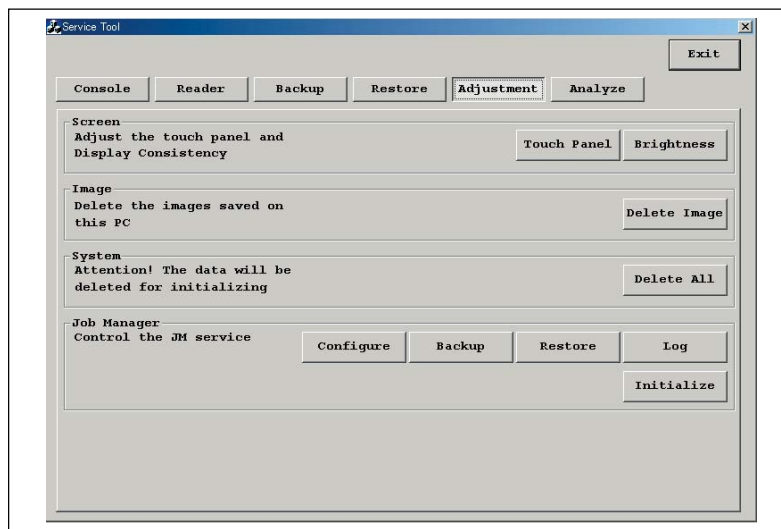
Since the external JM that is used in the “n to m connection” has no CS-3 operation unit (display) , it is not possible to operate the JM directly. In the case where the setting of JM needs to be changed due to the addition of CS-3 or REGIUS 170, or the JM needs to be shutted down for maintenance reason, the JM can be remote-controlled using the CS-3 which is networked with the JM.

A.6.1 Display/Change the JM Data Base

Make an access to the external JM using “PostgreSQL access” tool incorporated in the CS-3.

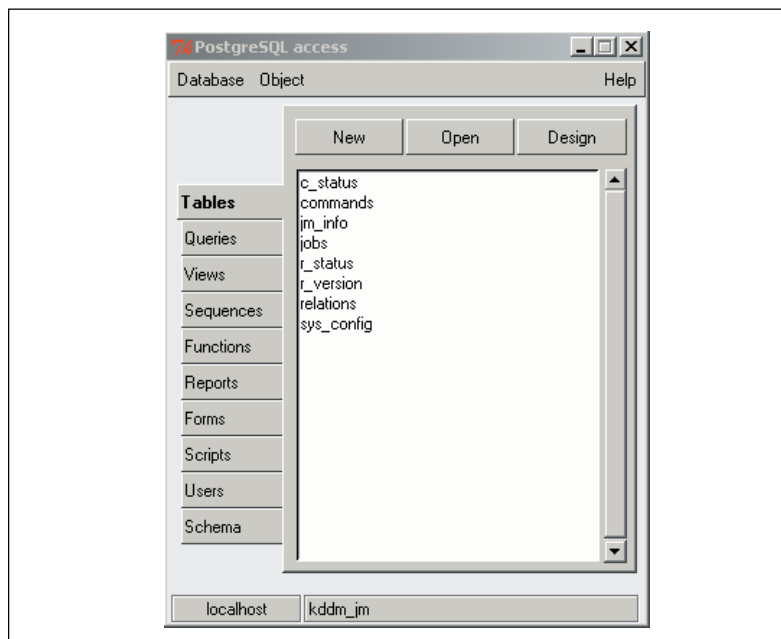
Using the same procedures as used for JM set up, listing of the data base, change & save can be carried out.

1. Click [Adjustment] of the “Service Tool” screen.

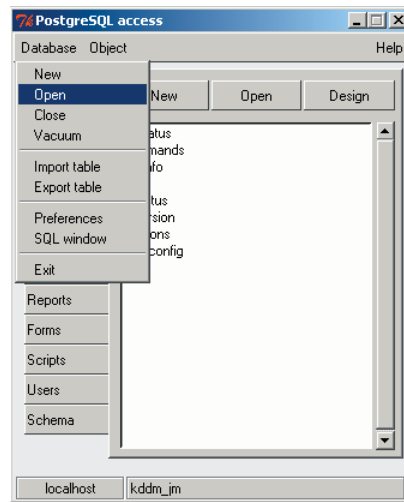


2. Click [Configure] of “Job Manager”.

“PostgreSQL access” tool will starts.

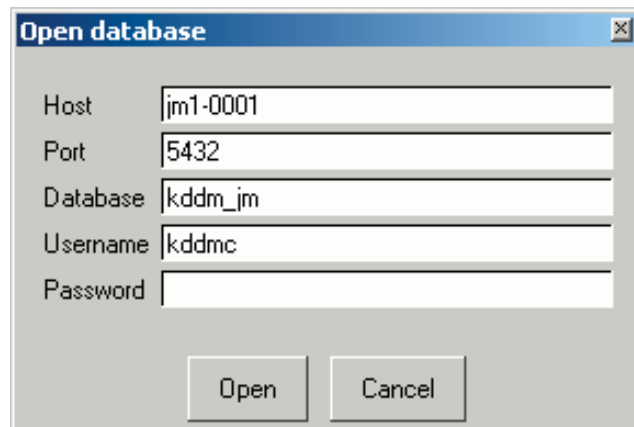


3. Click “Data Base”, and select [Open].



“Open DB” dialogue will be shown.

4. Rewrite “Localhost” to “jm1-0001” for “Host”.



5. Click [Open].

Implementing the above procedures using “PostgreSQL access” tool will enable the access to the JM data base.

Using the same procedures as used for JM set up, listing of the data base, change & save can be carried out.

<Important>In this way, the external JM data base can be manipulated using the CS-3. However, the other items listed on “Job Manager” of “Service Tool” screen (Adjustment) , i.e. “Back Up” or “Restore” cannot be implemented.

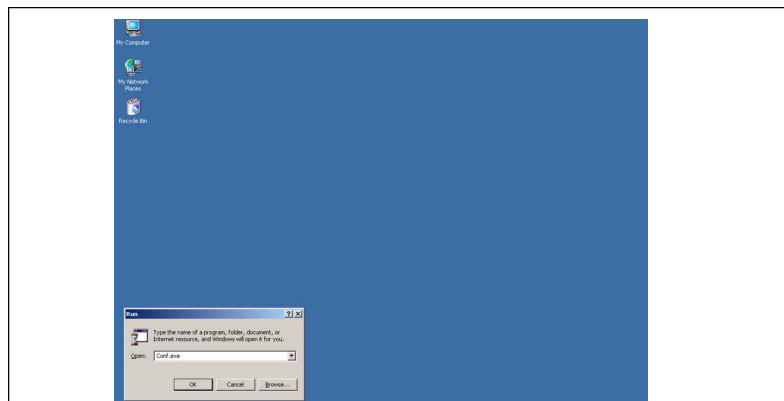
A.6.2 Remote-Controlling the External JM

Using “NetMeeting” of Windows, the CS-3 can directly control the external JM as the CS-3 controls itself.

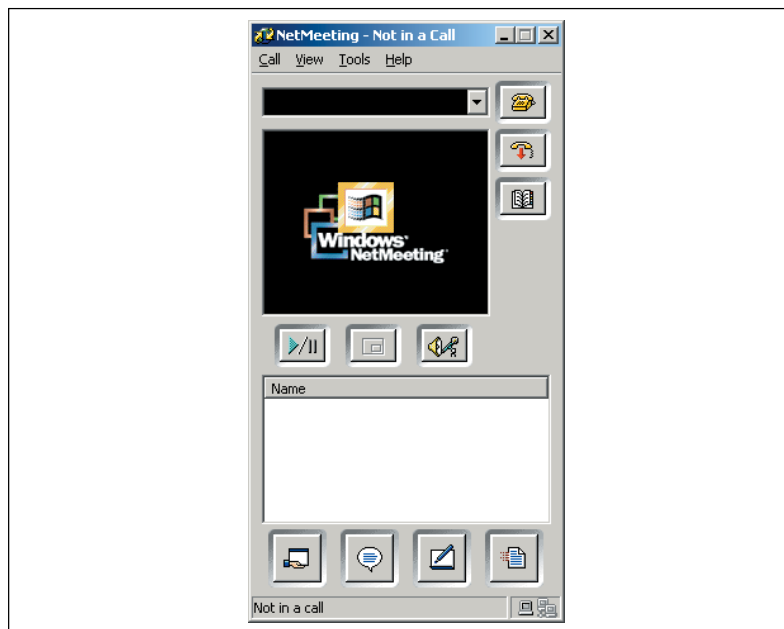
Using the “Netmeeting” functions enables the operation of the external JM as if you are operating the CS-3. It is also possible to shut down the external JM.

Starting “NetMeeting”.

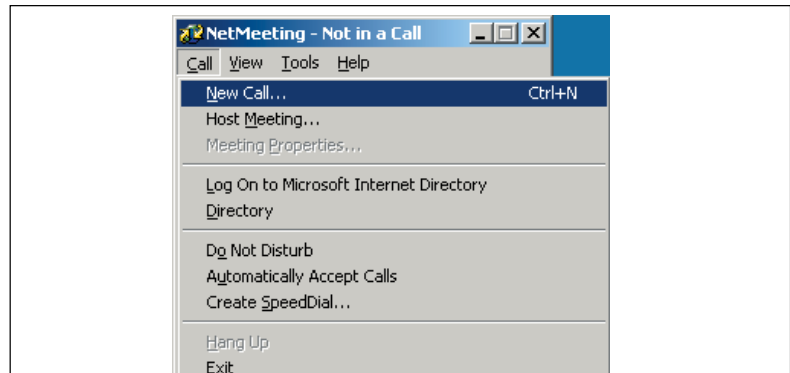
1. Open the “REGIUS Service” screen on the CS-3.
Refer to "[Service Tool Screens](#)", 1-22 for the procedures to open the “REGIUS Service Screen”.
2. Click [Return to Windows Desk Top].
Exiting the CS-3 application, and Windows Desk Top screen will be shown.
3. Click [Start] of the Task Bar.
4. Select [Program (P)] -> [Accessory] -> [Communication], then [Netmeeting].



“Windows NetMeeting” will start.

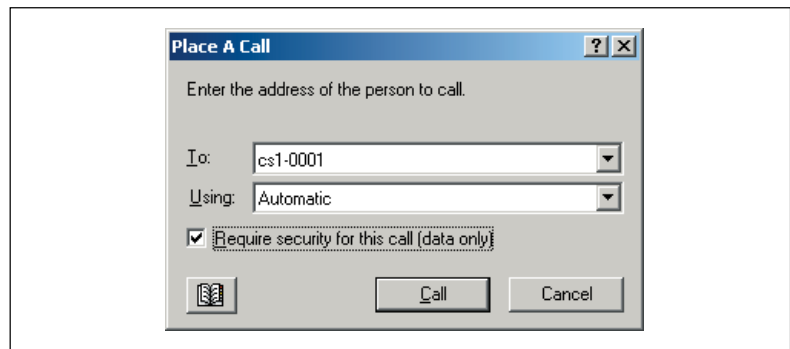


5. Click [Call] of the Menu Bar, and select [New Call (N)].



A dialogue to specify the network destination will be shown.

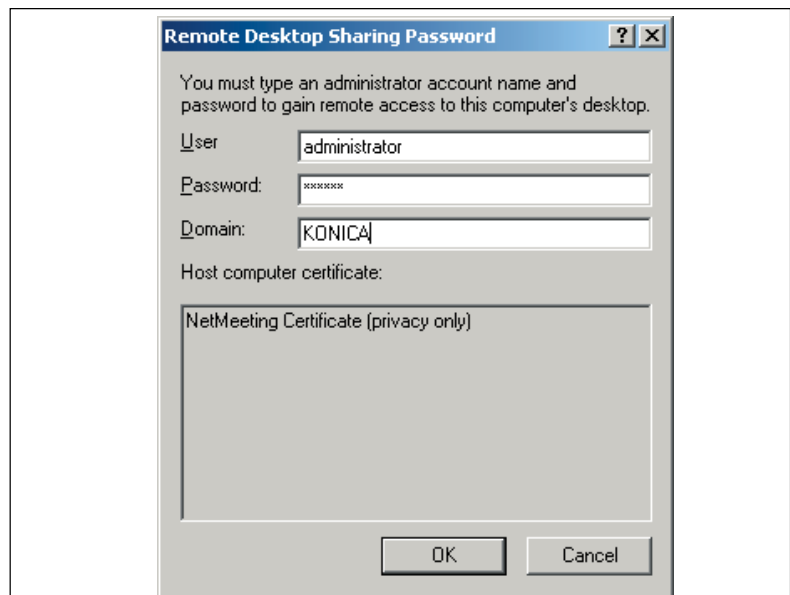
6. Input the name of external JM in the “To”, and tick the check box for “Require security for this call [data only]”.



<Important>Always tick “Require security for this call [data only]”. Otherwise, Desk Top of the external JM cannot be viewed.

7. Click [Call].

Communication with the external JM will start, and when the communication is successful, “Password Input” dialogue will be shown.



8. Input "Administrator" for "User", and the password of the Administrator for "Password".
 - Input either "KONICA" or leave it blank for "Domain".
9. Click [OK].

Desk Top of the external JM will be shown.



Implementing the preceding procedures will enable the CS-3 to operate the external JM by remote control.

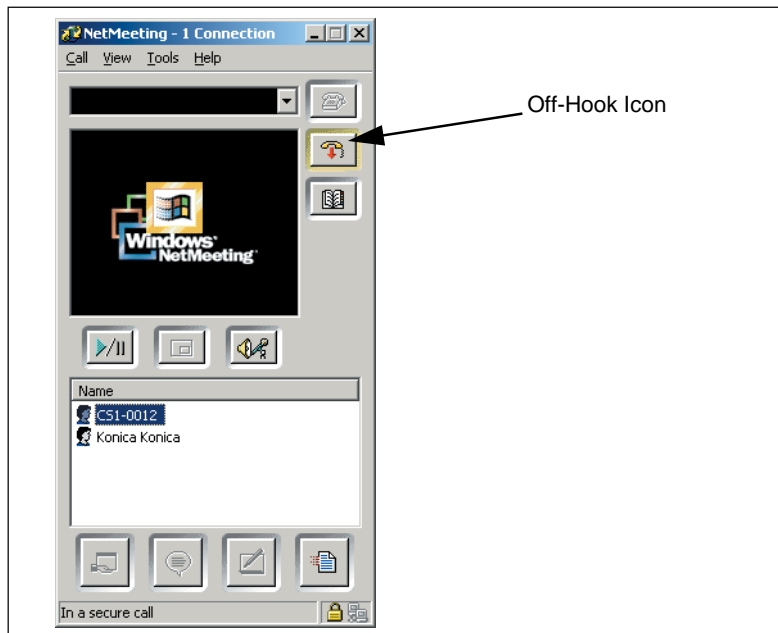
As long as the cursor stays on the window of the JM desk top, the mouse and keyboard of the CS-3 will operate as if these for the JM.

- Enlarge the JM desk top window to the maximum to facilitate the operation.
- "NetMeeting" enables the CS-3 to shut down or restart the external JM. However, once the external JM is shut down, the communication also cut off. In this case, restart the communication again using "NetMeeting" after the external JM restarts.
- For back up or restore of the system or data base of JM using "NetMeeting", the drive that can be used is restricted to the one incorporated in the external JM. Drives on the CS-3 cannot be used.
- In the case that the JM cannot be shut down by normal procedure due to an program error on the external JM, select "Send Ctr + Alt + Del (C)" in "Control" menu. "Security" dialogue of Windows will appear. Click [Shutdown (S)] to shut down the sytem.

Exiting the "NetMeeting" Follow the procedures below to exit the "NetMeeting", and to terminate the remote control of the external JM.

1. Click "NetMeeting-1 Connection" of the CS-3 task bar to bring the Net-Meeting window to the top.
2. When a property dialogue for meeting is shown, click [OK] of the property to close the window.

3. Click "Communicate" of the menu bar, then select [Halt Line (H)] or click off-hook icon.



The communication line to the external JM is disconnected, and the desk top window of the JM will close.

4. Click [Call] of the menu bar, and select [Exit NetMeeting (X)] to exit.

A.7 Writing the Backup Data on CD-R

How to save various backup data that has been stored in the desktop folder using the WindowsXP functions is described below.

Procedures below are the example assuming the “Backup” folder has been created in advance on the desktop, and backup data has been stored in this folder.

1. Click the [Windows Desktop] of the “REGIUS Service” screen to switch to the Windows Desktop.
2. Insert a new CD-R into the CD-R drive of the CS-3.
A dialogue will be displayed.
3. Select [Copy CD Folder Open] and click [OK].
Empty CD folder will be displayed.
4. Open the folder where the backup data is saved, and drag the file to be written on the CD-R to the CD folder.
5. Click [Copy these files] of “CD Write Task”.
“CD Copy Wizard” will be displayed.
6. Input a name under [CD Name (D) :], and click [Next (N) >] .
Copy to the CD-R starts.
 - Upon completion of copying, the CD-R drive automatically opens and the CD-R can be ejected.



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